THE POWER DYNAMICS IN CO-MANAGEMENT OF FORESTRY RESOURCES: THE CASE OF THE MAFUNGAUTSI FOREST RESERVE IN GOKWE (ZIMBABWE)

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Abstract

Although governance innovations that involve moving powers closer to the citizens are receiving increasing policy support, their implementation is not without problems. This study uses review and case study approach to critically examine the contradictions and ambiguities of "peasant empowerment" in a co-management venture between Zimbabwean foresters and peasant communities. The institutional infrastructure for co-management was derived from and superimposed upon a complex web of local power bases, further fragmenting existing networks of interest, affection and association, and thus limiting the scope for co-management. The legislative environment, at least during the pre-2000 period, supported the expropriation and control of the land and resources of peasant communities, thus contradicting the underlying principle of co-management, which is that of co-equal partnership. Powers over natural resources have remained centralized in the national state; the little power that has been decentralised has been transferred to levels that are not close enough to the citizens. Furthermore, there is no legislation that gives a legal mandate and fiscal autonomy to units closer to the citizens than the district level. The co-management venture is "supply-led" rather than "demand driven", implemented on the terms and conditions of their allies in the state bureaucracies responsible for natural resource management. However, in spite of their marginalisation, peasant communities continue to have a wide repertoire of tools, which enable them to significantly penetrate local and broader political processes. The study identifies the need for fundamental changes in the co-management system, including the creation of downwardly accountable institutions and experimentation with new co-management relations. It argues that such changes require related reversals in the ways that researchers, policy-makers, civil society organizations and other facilitators have traditionally conducted their business. The central thesis is that the state and other external actors have sought to mould seemingly local institutions and have tried to discipline these institutions towards the achievement of top-down conservation objectives.

Declaration

I hereby declare that this thesis has been composed by myself, and is the product of my own work.

Signed: Date: 12/08/2003

Research Publications Note

The following published papers were based on the work presented in this thesis;

Mapedza, E. & Mandondo, A. 2002, *Co-management in the Mafungautsi Forest Area of Zimbabwe - What stake for local communities?* World Resources Institute, Washington.

Mapedza, E., Wright, J. & Fawcett, R. 2003, An investigation of land cover change in Mafungautsi Forest, Zimbabwe, using GIS and participatory mapping, *Journal of Applied Geography,* vol. 23, pp. 1-21, © Elsevier Science.

I am grateful to Elsevier Science editor for permission to use material from my co-authored publication in the Journal of Applied Geography in this thesis.

Copies of these published papers form part of annex 4. I would want to thank my co-authors, Alois Mandondo, Jim Wright and Roy Fawcett for the inclusion of these papers. The participatory mapping paper was also presented at the Development Studies Association Conference held at Manchester University from 10 to 12 September 2001. The co-management paper was also presented at the Decentralisation Workshop organised by the World Resources Institute, held in Cape Town, South Africa from 15-20 October 2001. In addition, earlier versions of both papers were presented at the International Association for the Study of Common Property (IASCP) 9th Biennial Conference held in Victoria Falls, Zimbabwe, 17-21 June 2002.

Dedication

I dedicate this thesis to my wife and best friend Jacqueline and our little angel Kimberley - hopefully this justifies my long absence.

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Acronyms

AA: Appropriate Authority

AAEC: Association of African Earthkeeping Churches

AGRITEX: Agricultural and Extension Services (now AREX)

APA: African Purchase Area

ARDA: Agricultural and Rural Development Authority

AREX: Division of Agricultural Research Extension Services (formerly Agritex)

ART: Africa Resources Trust

AZTREC: Association of Zimbabwean Traditional Ecologists

BSACo. British South African Company

CAMPFIRE: Communal Areas Management Programme for Indigenous Resources

CASS: Centre for Applied Social Sciences

CBNRM: Community Based Natural Resource Management

CCG: Campfire Collaborative Group

CIDA: Canadian International Development Agency

CIFOR: Center for International Forestry Research

CLs: Communal Lands

Cottco: Cotton Company of Zimbabwe

CPR: Common Property Resources

CSO: Central Statistical office

DA: District Administrator

DNR: Department of Natural Resources

DPP: Department of Physical Planning

FCZ: Forestry Commission of Zimbabwe

FPU: Forest Protection Unit

GMB:	Grain Marketing Board
GOZ:	Government of Zimbabwe
GSRMP:	Gokwe South Rural Master Plan
IDS:	Institute of Development Studies
IUCN:	World Conservation Union
MNAEC:	Ministry of National Affairs and Employment Creation
NGO:	Non Governmental Organisation
NRs:	Natural resources
NTFPs:	Non Timber Forest Products
ORAP:	Organisation of Rural Associations for Progress
PDSP:	Pilot District Support Project
PRA:	Participatory Rural Appraisal
PRC:	Project Review Committee
RDC:	Rural District Council
RDCCBP:	Rural District Council Capacity Building Programme
RMC:	Resource Management Committee
SAFIRE:	Southern African Alliance for Indigenous Resources
SDA:	Seventh Day Adventist Church
Spp:	Species
SPSS:	Statistical Package for Social Scientists
SSCF:	Small Scale Commercial Farming area
TTLs	Tribal Trust Lands
UNIP:	United National Independence Party
UNEP:	United Nations Environment Programme
US$:	United States Dollars

VCC: Village Campfire Committee

VIDCO: Village Development Committee

WARDCO: Ward Development Committee

WRI: World Resources Institute

WWF: WorldWide Fund for nature

ZANU (PF): Zimbabwe African National Union (Patriotic Front)

ZAPU: Zimbabwe African People's Union

ZBC: Zimbabwe Broadcasting Corporation

ZERO: Zimbabwe Environmental Research Organisation

ZFU: Zimbabwe Farmers Union

ZimTrust: Zimbabwe Trust

ZINATHA: Zimbabwe National Traditional Healers Association

ZIRRCON: Zimbabwe Institute of Religious Research and Ecological Conservation

ZNA: Zimbabwe National Army

Z$: Zimbabwean Dollars

ZRP: Zimbabwe Republic Police

Names Used

Old Name	New Name
Mafungabusi	Mafungautsi
Rhodesia/Southern Rhodesia	Zimbabwe
Salisbury	Harare

Chapter One

1.0. Introduction

This study seeks to highlight that institutions to which power is decentralised need to be accountable to the local communities in order to have positive environmental outcomes (Rondinelli *et al.* 1989). Positive environmental outcomes, just like sustainability, are controversial and people mean different things when using the same term. There tends to be no universal definition. This research looks at co-management of forestry resources as an implementation strategy for decentralised forestry resource management (Dubois *Personal Communication* 16 October 2001; Lind and Cappon 2001).

This thesis will assess the implications of the power dynamics in the accountability arrangements of decentralised co-management of Mafungautsi[1] Forest Reserve in Zimbabwe. The study intends to conclude on how accountability arrangements within the forestry sector will result in either positive or negative social, economic and ecological outcomes. Decentralisation is gaining currency worldwide (*cf.* Eaton 2001)[2] as it is perceived as resulting in a sustainable environment. A sustainable environment may be defined as an environment that can be used to meet today's needs without compromising its ability to meet the needs of future generations (WECD 1987). The World Bank looks at sustainability within the forestry sector as comprising of three key pillars, which are:

1. Protecting vital local and global environmental services and values provided by forests.
2. Harnessing the potential of forests to reduce poverty.
3. Integrating forests in sustainable economic development (World Bank 2002).

The research looks at the issue of decentralisation in the context of the actual powers that are decentralised and the outcomes of particular forms of decentralisation. The issue of accountability of the new devolved powers has often been overlooked and

[1] Mafungautsi is the correct name for the research area. Before Zimbabwe's independence in 1980 the name was corrupted to *Mafungabusi* which will appear later in some sections when referring to some official documents. It is also important to note that even some official Forestry Commission documents use the two spellings interchangeably. For purposes of this thesis, the two differently spelt words will all be referring to the same research area.

assumed to be downward to the local citizens. Decentralised forestry management has not performed up to its expectations of devolving power to the lower tiers in natural resource governance. This research will use the Mafungautsi case study to analyse which powers have been devolved to the lower level institutions and to whom are the institutions accountable to.

In this chapter the concept of decentralisation is discussed in a broader context. Decentralisation is generally defined as to alter or to be altered by the transfer of organisation from one central place to several smaller less central places. It is also the transfer of authority from central to local government (New Oxford Dictionary of English 2001). The first chapter will look at the overall introduction, state the problem statement, research objectives, outline the research hypothesis, give an overview of the research sites before finally presenting the organisation of the study.

Decentralisation has been a topical issue in developing countries as a way of increasing efficiency and reducing the cost of central governments' contributions towards the cost of local governance[3] (Agrawal & Ribot 1999; Ribot 1999, 2000, 2001; Conyers 1983; 2000, 2001; United Nations 1962; Eaton 2001). Decentralisation has also been advocated for as a means of promoting democracy and good governance (Agrawal & Ribot 1999). Decentralisation within the public policy domain has also been translated into decentralisation within the environmental sector due to the failure of old conservation practices. Hulme & Murphree (2001) (*cf.* Brockington 2002) call the centralised form of resource management "Fortress Conservation."[4] Decentralisation is at the heart of any attempt to stimulate effective local participation (Gow & Vansant 1983). This was after the realisation that the "Tragedy of the Commons" School of Thought[5] seems to have misread the commons as open access regimes. Hardin (1968) argued that resources which are used in common were nobody's property as they were likely to be destroyed as each individual pursued his selfish economic interest which was not

[2] Mawhood (1983) notes that the word decentralisation has often been used and abused in order to justify certain actions or inaction.

[3] Conyers (2001) calls it "passing the buck" in the Zimbabwean context.

[4] These parks were maintained in a paramilitary style in Zimbabwe's Eastern Highlands (*cf.* Moore 1998). For examples on strong-arm tactics in conservation elsewhere, see Armstrong (1991) and Ellis (1994).

in the interest of the whole group. In order to avert the "tragedy of the commons," it was argued, governments had to reserve certain portions of land as gazetted lands[6] (Gauld 2000). Reserving land for parks and forest reserves by the state was crudely carried out through declaring forests occupied by local communities as "empty" or "wasteland" (Nygren 2000).[7] The increased land demand from communal farmers has further worsened degradation[8] of reserved forests. The increased pressure from communal farmers is now forcing governments to forge partnerships with the local communities in the management of natural resources. Forests have become 'highly contested spaces, arenas for struggles and conflict' (Doornbos, Saith & White 2000). In the forestry sector in Mafungautsi these contests have added to the urgency of decentralisation as a conflict resolution mechanism. Van De Breemer & Venema (1995) label such initiatives local resource management and Ostrom (1990) refers to such efforts as self-governance of common pool resources.[9] Common Pool Resources are resources to which a large number of people have access. These resources include grazing, forests and oceanic ecosystems (National Research Council 2002). Moyo *et al.* (1991) argue that the top down environmental management has been typical to the communal areas in Zimbabwe.

Within the Forestry sector, countries such as India and Nepal have taken leading roles in the formulation of decentralisation initiatives, which range from co-management to resource sharing (Agrawal, B. 1992; Hobley 1996; Sundar 2000). These initiatives are based on three principles, firstly that the locally resident community[10] has to participate in natural resource conservation. Secondly,

[5] Some academics refute his ideas on the premise that he lumped open access together with common property (*cf.* Ostrom 1990, 1992; Murphree 1991, 1999).

[6] This was based on 'scientific forestry' which has become difficult to sustain (Gauld 2000; Sivaramakrishnan 2000). Gauld (2000: 230) further defines it as forestry in which technical and productivity aspects rather than social and environmental aspects are considered.

[7] Sato (2000) argues that the reserved forests are areas which the local communities have derived livelihoods over generations and allocated use-rights amongst themselves. Doornbos, Saith & White (2000) call such moves "forest cleansing" as people are moved away to make way for trees and wildlife-which mainly benefits people at a global level. See also Alexander & MacGreagor (1996, 2000) on the forced movements in Matebeleland, Ranger (1989) in Matopo, Hammar (2001) in Vhumba in Gokwe North and Matzke (1993); Matose (1994, 2002) on the Mafungautsi case.

[8] This is a highly laden terminology evoking the 'crisis narratives' (*cf.* Fortmann 1995; Ekoko 2000).

[9] Twyman (2000: 806) points out that such methods facilitate "sustainable livelihood support programmes"

[10] The word community does not have a universal meaning and has been used by different researchers to refer to different things in different circumstances. This term, which may be used by outsiders, might not be congruent to the local people's understanding of their community. This term may be conveniently used to mask the differentiation that may exist in a particular area (Chambers 1983;

sustainability, which states that resources to be conserved have to be exploited (conservation through use) (Hulme & Murphree 1999, 2001). Thirdly that markets for forestry and natural resource products should play a greater role which help to add value hence their conservation (Hulme & Murphree 2001). Globalisation through donor agencies has also helped in spreading the decentralisation principles, which has seen governments embracing various decentralisation implementation strategies including co-management approaches. Deforestation is now seen "as a global problem and tropical forests as the lungs of the world, whose protection is essential for the survival of the planet" (Nygren 1998 cited in Nygren 2000: 24).

1.1. Problem Statement

Decentralisation of the forestry sector is considered desirable because: it recognises local and outside actors as important players; it generates income flows and other benefit streams to the local sector; it facilitates a sense of custodianship among local communities "if we lose it, we will not use it" and it blends with local livelihood strategies. Consequently decentralisation of governance within the forestry sector has been hailed as a crucible for democracy that enables local communities to sustainably manage their natural resources. However, this is the ideal foundation on which the decentralisation discourse is based; local specificities are an important variable which need consideration.

This research seeks to examine the issue of decentralisation in the context of the actual powers that are decentralised and the outcomes of particular forms of decentralisation. An underlying assumption of most decentralisation initiatives is that institutions created at a local level will, by default, be accountable to their local citizens and not the central government. Evidence from the field shows that decentralised forestry management in Zimbabwe has not performed up to the expectations of its architects in that frequently power has not been devolved to the lower tiers in natural resource governance (Wekwete & de Valk 1990; Murombedzi 1991, 1999; Makumbe 1998). Power in natural resource governance has not been devolved to the lowest units of resource management. Decentralisation efforts have

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Race & Buchy 1999). Gauld (2000: 242) points out at the dilemma of identifying a community, where to begin, where to end, who should be included or excluded and whether selected individuals will be advancing the cause of the community.

often resulted in the intrusion of the state at a local level - resulting in some sort of localised dictatorship.

1.2. An Overview of Forestry

Forests are the most widespread ecosystems in the world with nearly 500 million people dependent on forests for their livelihoods. World forest loss is between 17 to 20 million hectares per annum and is largely in developing countries (World Bank 2002). Environmental degradation has been outlined as one of the key challenges in sub-Saharan Africa. One needs to be careful not to wholesomely accept such generalisation or the "Crisis Narratives" which seek to paint a gloomy - and at times an un-analytical picture of the situation on the ground (*cf.* Fairhead & Leach 1995, 1996; Leach & Fairhead 2000). Research and funding of certain resources only become important once they are defined as a global problem (*cf.* Adams 1996; Roe 1993, 1995; Sachs 1993; Taylor & Buttle 1992; Nygren 2001). This is strongly linked to the donor agenda. Having cited the foregoing one needs to point out that the interpretation of forest processes and especially the African physical landscape is a contested arena. Contestants can be loosely grouped into two camps. Those that feel that tropical forests are into irreversible degradation, and those that feel that the ecosystems are dynamic phenomenon that regenerates from a state of decline. The former are normally associated with the donor[11] constituency and the later with Beinhart 1989; Scoones 1996; Leach & Mearns 1996; Tiffen, Mortimore & Gichuki 1994a, 1994b.

Natural resource management has been and continues to be a thorny issue in most African countries. The resource management dilemma has been worsened by the prevalence of poverty, which makes people strive for survival at the expense of sustainable resource management. The Zimbabwean experience is illustrative of the point being made here. Forestry resources in Zimbabwe's communal areas are perceived by the government as supporting an irrational rural economy with no significant 'monetary' value to the state. Consequently, the state sought to control vast areas in the name of 'conservation'. This state intrusion was a way of making the forests part of its fiscal base. The thrust of forestry policy was towards

[11] This is a broad brush labelling. Within the donor community itself, there is an array of policies, which at times may be crudely approximated through their funding priorities.

accelerated commercial timber exploitation while stressing its ecological relevance (FAO 1993). A major challenge for governments is *de facto* as opposed to juridical (*de jure*) control of these reserved lands (Mapedza & Mandondo 2002). It is now increasingly being recognised that forest management plays an indispensable link between the environment and development in rural Africa and cannot be conserved for conservation's sake only (Ojo & Ashton-Jones 1998; FAO/DFID 2001). It is wasted effort to advocate for sustainable utilisation without alleviating poverty,

> "...it is both futile and an insult to the poor to tell them that they must remain in poverty to protect the environment" (Hulme & Murphree 2001: 1 citing the Brundtland Report, World Commission on Environment and Development (WECD) 1987).

The World Bank's Revised Forest Strategy has sought to look at forestry through its three pillars, which seek to manage forestry resources within the context of reducing poverty as previously cited (World Bank 2002).

Goodland (1991) quoting Mohandas Karamchand Ghandhi, also emphasises the importance of livelihoods by pointing out that "Even God dare not appear to the poor except in the form of bread" (Goodland 1991: 33). Some international organisations are recognising the importance of addressing poverty as a way of sustainably managing forestry resources (FAO 2003; United Nations 2002a, World Bank 2002).

This new thinking is slowly becoming engraved in the resource conservation approach in African countries including the sustainable use of Non-Timber Forest Products (NTFPs). In a number of instances some of the resources have already been depleted. This is in line with the current move towards poverty alleviation, which is mainly focused towards rural areas. Contributing to poverty alleviation should be the major goal of forestry policies (FAO 2003; FAO/DFID 2001; van Gardingen 2002). In India trees can be used to redeem debts and mortgages (Chambers 1983). There is a synergy between sustainable forest management and poverty alleviation (DFID 1997). Donor organisations such as the World Bank are making it a condition of lending money for forestry projects:

> The bank will stress new approaches to management of protected areas that incorporate local people into protection, benefit sharing, and planning and

will highlight the need to consider the needs and welfare of forest dwelling people (World Bank 1991: 65; *cf.* World Bank 2002, FAO 2003).

The World Bank's Revised Forest Strategy has further confirmed the importance of local communities in forestry management. This is what they see as a broad perspective towards sustainability (World Bank 2002). The FAO and DFID further call such an approach "people centred forestry" (FAO/DFID 2001: 5). "Eradicating poverty is the greatest global challenge facing the world today and an indispensable requirement for sustainable development, particularly for developing countries" (United Nations 2002b: 2).

There is no doubt that forestry management issues, just like other natural resource management issues, are intricate and complex. The dynamism and specificity of forestry issues make it impossible to generalise for other parts of the World. Historically the general approach has been that environmental issues were strictly viewed within the environmental context excluding the holistic rural development approach. Such inflexible sectoral and 'compartmentalist' policies have been a setback for sustainable management, which is not unique to the forestry sector. This has meant that the Forestry Commission of Zimbabwe (FCZ) has been mainly concerned with the conservation of trees, whilst the Ministry of Agriculture has been focusing on agricultural issues without paying attention to inter-ministerial linkages. Legislation has been fragmented making it difficult to have an overall picture of the whole environmental scenario.

In Zimbabwe, the Environmental Management Bill proposed in 1998[12] seeks to address such anomalies by having a holistic approach in environmental management. The exercise is being hastily done and this may compromise stakeholder consultation. Such a chaotic scenario is still not conducive for sustainable environmental management. This is likely to change if appropriate policies and strategies that recognise the interest of the local forestry user groups are implemented. Inclusion ensures maximum social, ecological, economic, cultural and spiritual benefits from the forests. Such change will usher an end to the technocratic approach, which entails management of forests for the people but against the people.

[12] This bill has now been passed (The Herald 27 November 2002).

This is because priorities are given to the trees and not the human beings. According to Penelon (1997), this has demotivated the rural communities whose energy could otherwise have been harnessed for successful forestry management in developing countries.

In Zimbabwe tenure laws have always taken a criminalisation approach towards the local communities. The Communal Areas Management Programme for Indigenous Resources (Campfire) in Zimbabwe has proved that communal farmers can meaningfully conserve their natural resources if they are given a genuine opportunity to do so (Hulme & Murphree 1999, 2001). This form of self help management of trees and forests is most likely to be effective. Local communities will be dealing with their livelihoods so they are bound to be more committed than technocrats whose stakes might not be as high as those of the farmers are (Bird *et al.* 1995).

1.3. "Fortress Conservation" and its Rationale

The section above has looked at the problem statement within the arena of reserved forests. The following section looks at what is a gazetted forest and what was the motivation for gazetting or reserving forest areas. "Fortress Conservation" is the use of force backed by legislation that seeks to conserve forest resources through the exclusion of people from gazetted areas. The gazetted forest reserves are a common scenario in a number of countries and they might be called by different names in different countries. In Zimbabwe these are areas set aside in terms of the Forest Act of 1996 mainly for ecological reasons. They are also referred to as protected forests. Within the wildlife sector in Zimbabwe, such reserved areas are called national parks in terms of the National Parks and Wildlife Act of 1975.

Gazetting of forest reserves and parks was justified by the tragedy of the commons rationale. The tragedy of the commons theory (Hardin 1968) has often been used as a justification for government interventions in the management of communally owned resources (Feeney in Jodha 1992). The tragedy of the Commons first advanced by Hardin in 1968 stated that resources which are owned by a group will quickly be depleted as each individual pursues his own personal interest resulting in the destruction of the resource. This gave indications that rules and management had

to be externally enforced, in the interest of the local community. Justification for the designation of forest reserves is based on technical expertise aimed at arresting degradation of forests and catchment areas. In some cases decisions were based on the rule of the thumb. For instance the United National Independence Party (UNIP) in Zambia in its 1959 Manifesto called for the setting aside of 15% of all land as reserved forest (Akapelwa 1996) with social and tenure issues not being perceived as relevant variables in solving the resource sustainability equation.

Reality has awakened states as they continue to experience rapid degradation to the "protected" or "reserved" forests. It has become a clear fact to the Zimbabwean government that they can not stop the "tragedy of the state property."[13] Financial and human resource outlay associated with "reserved forests" have proved too prohibitive for the already cash strapped developing country governments (Pullan 1988).

Government resources channelled towards the upkeep of 'reserved forests' have proved to be prohibitive and the fact that conservation issues including forestry have been seen as footnotes in the Ministries of Agriculture, Tourism or Mines.[14] In Zimbabwe the Communal Areas Programme for Indigenous Resources (Campfire) has made government realise that communal farmers are capable of sustainably managing their resources. It only needs the government to entrust management of rural resources to rural farmers.

The Tragedy of the Commons school of thought has been rejected by some academics (Bromley & Cernea 1989; Repetto & Holmes 1984; Ostrom 1990; Feeny *et al.* 1990; Murphree 1991; Runge 1992). Communal land was wrongly perceived as open access instead of common property. With the failure of state management of natural resources, academics are now exploring the possibility of community management of natural resources. The gazetting of common property forests, as

[13] The term, which I feel, seems to be an appropriate description of the flip side of the tragedy of the commons.

[14] In the 2002/3 national Budget in Zimbabwe the ministry of Environment and Tourism got the second least budget allocation of Z$2.494 billion out of a total budget of Z$782.41 billion. The official exchange rate is 1US$=Z$55 or 1£=Z$85. However, due to the shortage of foreign currency, rates which are twenty times the official rate, have been said to be operational on the parallel market (The Financial Gazette, 27 February 2003).

'reserved forests' has not helped reduce the rate of forest degradation. Communal farmers alienated from 'their' resources tend to destroy the resource under contention. This has led to a change in the conservation paradigm as outlined in the next section.

1.4. Conservation Paradigm Shift

The section below looks at the most recent developments, which has seen the shift in natural resource management paradigm. It will also be demonstrated that the shift is a long process whose origins can be traced as far back as the 1960s. However, implementation of such initiatives has only been mainly carried out in the post 1980 period.

There has been a shift in the conservation paradigms in Africa in the past ten years. Hulme & Murphree (2001) regard this as the "new conservation", which has moved away from "fortress conservation" to community based natural resource management (CBNRM) (*cf.* Nhira 1998; Jones 2001; Kangwana & Mako 2001; Sibanda 2001; Matose 2002; Brockington 2002). Hulme & Murphree (2001) further point out that this new approach is not a panacea for all conservation problems in Africa, but it will provide a framework for conservation policies and institutions. In Zimbabwe, Campfire is such an effort and a move towards community participation in natural resource management. In Namibia, the Kunene community-based wildlife management similarly used pragmatic approaches to resolve competing interests over land based resources (Jones 2001). However, it is important to note that some academics observed that sustainable natural resource management has to be inclusive rather than exclusive as far back as the 1960s (Phillips *et al.* 1962). Whilst the implementation has largely been carried out from the 1980s, the issue has been highlighted as far back as the 1960s.

Although the new conservation is a welcome development, it has come up with its own dynamics. Forests have sadly become battlegrounds in which the state interests wrestle the indigenous or local interests. The history of the study area of Mafungautsi state forest and its environs is characterised by a history of conflict between the Forestry Commission, a state agency, and the surrounding community. This violence against local people and their property, which at times involved the

use of the Zimbabwe National Army (ZNA), are reminiscent of the experiences elsewhere in Lake Mburo National Park in Uganda (Hulme & Infield 2001) and Tarangire National Park in Tanzania (Kangwana & Mako 2001). As in the cases above, the ultimate victim of the conflict has been the forest. Some states, within the framework of the new paradigm shift, have embarked on resource sharing or co-management as a mechanism of correcting the past conservation injustices (Hulme & Murphree 2001).

The Forestry Commission in Zimbabwe, going back to its establishment in 1953, has always thought that enhanced technical capacity in forest management would be sufficient to guarantee their renewal for the good of the nation (*cf.* Penelon 1997). State forests are intended to generate financial returns and also to provide services for the public good, especially broad ecological functions such as watershed protection (Katerere 1992; *cf.* Vermeulen 1997) and carbon sequestration (Nhira *et al.* 1998).

This new paradigm has seen an increase in the advocacy for community participation in forestry. It is now important that management of ecosystems has to be carried out by those immediately dependent on the resource. Despite efforts by forestry departments and states to implement participatory forestry management it is ultimately the balance of power[15] which will determine whether co-management will succeed or not. Many decentralised forestry management arrangements have resulted in increased responsibility for local people, without a corresponding increase in their rights and privileges (Penelon 1997). This renders some participatory forestry projects a burden to the local people and such initiatives are refused or passively accepted. In some instances the "donor community," including the Canadian International Development Agency (CIDA) in Zimbabwe, has acted as the main driving force towards change in forestry departments. The FCZ or district forestry departments have half-heartedly implemented the "devolved" management without meaningfully shifting the power loci to local communities.

[15] Power is a key aspect in the study of natural resource management as it helps shape the relations of production (Agrawal, B. 1992; Moore 1993).

Some projects are being implemented with the view that this is a passing phase in which donor funds can be accessed. According to Penelon (1997) participation has been accepted as long as it does not disturb existing power structures. Often this means its restriction to project frameworks, which have a limited life span (Penelon 1997: ii). Such "development" activities might result in the entrenchment of government power as was the case in the Thaba Tseka Project in Lesotho (Ferguson 1990).

The paradigm shift under discussion is not a one off event. Forest management takes different forms, in a continuum with 'fortress conservation' being on one extreme and devolved community participation being on the other extreme. Within the shifting paradigm, there are varying alliances and levels of devolution, which have worked under different contexts and circumstances (Hulme & Murphree 2001).

There is an urgent need to bridge the gap between customary and formal rules in order to have sustainable forestry management in Africa (Dubois 1997). Devolution of resource management does not follow a single and well-demarcated path. This has to be done within a social and cultural context. Co-management is an implementation strategy or option of the decentralisation process within the environmental sector.

The new paradigm has also meant that various stakeholder interests result in an imbalance in power relationships (Dubois 1997). "Principle 22" of the Rio De Janeiro Earth Summit points to the importance of recognising the rights of indigenous people over resources such as land. Indigenous knowledge is relevant, valid and useful for most rural development projects (Warren, Slikkerveer & Brokensha 1995). It is always important to learn from a community before you start to teach them anything. Indigenous knowledge plays an important role in forestry conservation and management (Messerschmidt 1995). This is also the message that emerged from the World Summit on Sustainable Development held in Johannesburg, South Africa from 26 August to 4 September 2002.

The poor in rural areas do not have the social and political power to capture the benefits derived from community forestry. Most communal area dwellers have often

been portrayed as destroyers of forests. Fairhead & Leach (1996) contest this view through their study in West Africa which demonstrated the fact that even the so-called scientific knowledge to forest degradation is based on perceptions rather than technical evidence. Their research further demonstrated that forests, which were said to be contracting over the years, were expanding contrary to the "expert wisdom." In another study from Zambia, for instance, it was demonstrated that the *Chitemene system* (shifting cultivation) of farming was not primitive and backward, but it was a complex and highly adaptive farming system (Richards 1939; Moore & Vaughan 1994; Nkowani 1996). There was a tendency among observers to view any system that involved the burning of trees and eventual abandonment of fields as in some sense wasteful. Richards (1939) echoed the prevailing mythology of the colonial period that held that *chitemene* was backward and primitive, but this existed side-by-side with the view that this was a system well adapted to local environmental conditions, as well as being flexible and responsive to change (Richards 1939; Moore & Vaughan 1994). The above section looked at paradigm shift in natural resource management in Africa. The shift is from centralised resource management to a more decentralised and participatory type of resource management. The next section looks at the justification of this study.

1.5. Justification of the Study

There have been very few studies on the forest reserve/village interface in Zimbabwe (Matose 1991, 2002; Vermuelen 1994; Matzke & Mazambani 1993). This research fills the gap of existing data by using a decentralisation conceptual model (Agrawal & Ribot 1999) to explore the co-management within the forestry sector through the case of Mafungautsi in the Midlands Province of Zimbabwe as later shown by Figure 5. The study will chronicle the progress and challenges encountered in the implementation of the Mafungautsi Co-management Project and complement documentation and analysis of Campfire. There has been a lot of research effort on decentralisation within the wildlife sector under Campfire by various researchers (Murphree 1990, 1991, 2001; Murphree & Cumming 1991; Murombedzi 1991, 1992, 1994; Dzingirai 1994, 1995; Madzudzo 2000; Sibanda 2001) but few researchers have focused on communal areas/forest reserve interface (Matose 1994, 2002; Nhira *et.* al 1998). The co-management in Mafungautsi offers a unique opportunity to assess the decentralisation within the forestry sector.

Mafungautsi is the first attempt by FCZ to implement co-management. Gwaai in Matebeleland North was intended to be the second forest reserve where Shared Forest Management funded by the Department for International Development (DFID) was to be implemented. Not much progress has been achieved since the early withdrawal of DFID funding.

The research further aims at contributing towards the ongoing attempts to merge Geographical Information Systems (GIS) and participatory approaches that is still in its infancy (IIED 1999). The research will analyse land cover change using aerial photographs and GIS (technical) and the household (social) data analysis. In forestry, Geographic Information Systems are assuming an increasingly important role (Borough 1986). The study is relevant to the current community concern over resource degradation and resource scarcity. This research will help communities to build and strengthen traditional institutional capacity and environmental values while integrating new planning skills and management practises in evolving forest protection systems (Poffenberger 1996).

The research is important in that it is one of the few studies, which analyses co-management of forestry resources in Zimbabwe within the decentralisation framework. Co-management will be studied as one of the mechanisms of implementing decentralisation within the forestry sector. Co-management as a form of decentralisation within the forestry sector will only be successful if the decentralised institutions are downwardly accountable to their constituencies. The success or failure of forestry resource management will mainly be a function of the power dynamics[16] within and among participating institutions such as the Forestry Commission, Village Development Committees (VIDCOs), Resource Management Committees (RMCs), and individual households. Success or failure can also be determined by who has control over project material and resources. Control over resources will vary amongst the various stakeholders who include the Rural District Council (RDC), Forestry Commission, RMCs, VIDCOs and households. It is the

[16] These dynamics are not only between the state and the Mafungautsi community but they are a result of all the actors involved in co-management who are trying to push the relationship in different directions in different cases (Doornbos, Saith & White 2000: 7).

ultimate balance of control and decision making that will determine whether co-management succeeds or fails.

This research is also important in that it attempts to look at the issue of tradable forestry rights through the permit system for resource harvesting and assess their implication for sustainable resource management for the Mafungautsi Forest in Gokwe. The research will make use of household questionnaire interviews in order to find out if the household attitude has changed and whether or not it is due to the benefits that are accruing under co-management. Key informant interviews will be conducted to ascertain the influence and role of benefits in affecting the decision to participate in the project. Benefits are meant to encourage structural and behavioural change. An important question for research is who benefits? What benefits do the poor and the women get?

Most communal farmers in the communal areas have raised concern at the powers granted to the Rural District Councils to cut down trees in their fields. This has caused governance problems in the Mutendi area of Gokwe (Bird *et al.* 1995). It's surprising how the same problem has been replicated elsewhere in Africa.

> In the past farmers made a lot of effort to tend trees on their farmlands...even where farmers engaged hired labourers they told them to protect the young trees if weeding on a cocoa farm...Then you wake up one day to find the very tree you tended has been logged and your crops destroyed (IUCN 1996: 29).

This study is important in that it draws lessons of experiences from co-management in Zimbabwe that may be used as a basis for comparison with countries with similar experiences. Lessons from Mafungautsi are also important in that they may help inform similar initiatives such as Shared Forest Management in Gwaai Forest Reserve in Zimbabwe. The next section now looks at the research hypothesis.

1.6. Research Hypothesis

The main research hypothesis is that powers seemingly devolved via one mechanism are being re-centralised via other mechanisms making co-management unsustainable. Such decentralisation which is accompanied by re-centralisation have resulted in no real power being devolved to the lower units in forestry management, which has resulted in negative environmental outcomes. "Power is defined as the

ability of actors to exercise their will in a manner that is contrary to the interests of others" (Madzudzo 2000: 126 *cf.* Maquet 1971; Lukes 1981).

The second hypothesis is that there will be a positive correlation between broad-based downward accountability and greater equity in access to and use of forestry resources. The more accountable the forestry institutions are to their constituencies, the more chances there are of managing forestry resources in a sustainable manner.

1.7. Research objectives

The study seeks to address several objectives. They largely revolve around powers devolved, actors and accountability. The research objectives are as follows;

- To identify and explain institutional accountability arrangements in environmental decentralisation in Mafungautsi and to test whether more equitable and environmentally sound practices can be attributed to more downwardly accountable forms of local control over environmental decisions.

- To determine the accountability mechanism of the decentralised forestry management.

- To identify the factors contributing to decision-making arrangements at the household level that lead to the success or otherwise of co-management.

- To identify the configuration of decision-making and decision-support systems within the target communities contributing to the success or otherwise of the project.

- To determine the contribution of external inputs (nature and extent) to the fate of the project.

- To assess the likely future impact of benefits to the community in terms of perception and practice of forestry resource management.

- To determine the usefulness and the role of integrated participatory approaches and Geographical Information Systems (GIS) in sustainable forest management in Zimbabwe.

1.8. Research questions

It is hoped that by addressing the above objectives critical questions outlined below, relating to resource management in Mafungautsi, will be answered.

1. What powers (decision-making, law enforcement, sanctioning, and adjudication) have been devolved to Resource Management Committees (RMCs) within the co-management project? What powers has government and other institutions retained and why?
2. Who are the lead players within these institutions? Does the Mafungautsi community understand its role? Do the people feel they own the process through which they were created?
3. How are communities represented? What is the level and direction of accountability of these RMCs (To whom are they accountable? How accountable are they?).
4. Are the interests of marginalized groups (women, the poor, the youth) being addressed by RMCs?
5. How is the community benefiting as a result of its active participation? From whose perspective are benefits conceptualised?
6. Is the type and level of community involvement in the management of forestry resources likely to lead to positive ecological impact in the future?

The research questions will seek to look at the formation of the RMC, its composition, decisions and powers. They will also seek to try and assess if the perception and practice of the Mafungautsi community has changed as a result of the co-management initiative. The next section gives an overview of property regimes in Zimbabwe in order to be able to contextualise the research property regime of Mafungautsi.

1.9. An Overview of Property Regimes in Zimbabwe

Resource use and degradation has to be analysed within the property regime context. One needs to understand tenurial arrangements and assess their implication on sustainable resource management. Tenure refers to the terms and conditions under which land and natural resources are used in a given area. Property is not an object "but rather it is a right to a benefit stream that is only as secure as the duty of all others to respect the conditions that protect that stream" (Bromley & Cernea 1989: 5). The right to benefit should correspondingly be linked with responsibilities. The various tenurial arrangements are incompatible and there are possibilities of various tenurial arrangements within one resource. In practice, natural resources in Zimbabwe are rarely managed solely within one property regime (Murphree 1993).

1.9.1. The state property regime

The state property regime occurs where the ownership and control of the resource lies with the state (Matose & Wily 1996). Access to the resource is sanctioned by the state. Usufruct rights may be granted over a specific period through lease or permit system. In Mafungautsi Forest Reserve a permit system has been in use. The Forestry Commission in Zimbabwe is finding it increasingly difficult to effectively "lock out" the communal farmers from using the forest. Some forest reserves in Zimbabwe are in transition to semi-open access regimes as the neighbouring communities contest state ownership of such forestry resources.

1.9.2. Private property

The essence of private property regime is simply the legal and socially sanctioned right to exclude others (Bromley & Cernea 1989). Commercial farms in Zimbabwe are under private ownership. Private ownership, it is argued, promotes investment in natural resources. In Zimbabwe (Beinhart 1984) points out that commercial farmers have not been better than communal farmers in conservation terms. It is also important to note that conservation is not the only objective of resource management (*cf.* World Bank 2002's three pillars cited earlier). Large tracts of land tend to cover up the gross conservation inefficiencies. Bruce (1986, 1989) pointed out that individual ownership does not guarantee that grazing will not be subject to over exploitation through overgrazing.

1.9.3. Common Property Regime

Common Property regimes give rights to use land and natural resources to specified groups or communities of people. Common property is not "everybody's property" (Ciriacy-Wantrup & Bishop 1975; Cousins 1990). Bromley & Cernea (1989) call it communal property whose main characteristic is an identifiable community of interdependent users, which exclude non-members and cultural norms govern their use by members. For the enforcement of norms there has to be a good institutional framework respected by the community. Swallow (1989) in Cousins (1990) outlines the characteristics of common property regimes as follows:

(a) There are collective rights of the resource.

(b) Group members have secure expectations that they can gain access to future use of the resource.

(c) There is a functioning membership criteria.

(d) There are communally defined guidelines for resource use.

(e) There is an enforcement mechanism for punishing deviant behaviour.

Examples in Zimbabwe include forestry, grazing and water resources within the communal area. The communal area of Mafungautsi can be classified under the common property regime. The communal areas are not a perfect common property as the government has passed legislation such as the Natural Resources Act Chapter 20:13 of 1996, Communal Lands Act of 1982, Communal Lands Forest Produce Act 1987, Forest Act of 1996 which vests appropriation powers over natural resources to the central government and its agencies at the expense of the local resource users. Legally, communal areas are owned by the state but practise on the ground show signs of common property resources. One, however, needs to note the complexity of property regimes within the communal areas of Zimbabwe.

1.9.4. Open Access

Open access regime is where there are no clearly defined rights of use. It is from such property regimes that Hardin derived his Tragedy of the Commons theory that he went on to generalise for the Common Property Regimes. According to Swallow (1989) in Cousins (1990), open access regimes are commonly characterised by lack of social authorities to define and enforce the rights of individuals or groups to use the resource. This ultimately leads to each resource user ignoring the consequence of

his behaviour on others. Common property resources have continued to be the basis of survival of many poor people in the developing world. Differences between common property and open access have been down played by Hardin (1968) leading to many governments reducing land and resources under the common property regime that is crucial for survival of rural households.

The present synthesis study, as well as studies by other social scientists, have demonstrated a close link between common property resources (CPRs) and the survival systems of significant numbers of the rural people (Jodha 1992). The extension of forest reserves or protected forests was as a result of the "perceived unsustainability" of the Common Property Regimes. Whilst it is important to have reserved areas to improve the quality of germ plasma this should not lock out communities from deriving livelihoods from forests. Such moves will greatly disadvantage the poor rural communities who are more dependent on woodlands (de Beers & McDermont 1989; Bradley & Dewees 1993; Campbell 1996).

1.10.Tenure

Tenure regimes are socially defined rules for access to resources and rules for resource use that define people's rights and responsibilities in relation to the resources. They reflect power relationship between different stakeholders (Dubois 1997).

1.10.1. Tenurial Niches

Tenurial niche is a space in which access to and use of a resource is governed by a common set of rules (Bruce *et al* 1993). This is relevant to the Zimbabwean context in that there may be no crystal clear tenurial arrangements in some areas. Within Communal areas there will be influence of government through legal instruments. Customary rights, individual tree management, local religious sanctions or pragmatic controls might not necessarily coincide (Matose & Wily 1996) thereby calling for the need for an arbitrator, a role which has been performed by traditional leaders. In Gokwe Chief Njelele claimed to have power over natural resource exploitation. His power is however waning due to legal setbacks and increased pressure on natural resources as the population size increases. Different rules might

apply on the same land during different times of the year thereby allowing flexibility in accessing natural resources for the local people.

In Zimbabwe there has been a long tradition of resource management in which the local communities have participated. Most of these resource management arrangements are based on traditional leadership structures or spirit mediums. In most parts of Zimbabwe fruit trees are sacred and the local people are not allowed to cut down these trees (*cf.* Gelfand 1971). Anyone who violates any of these local rules and regulations would be brought to the chief or headman for punishment. The main aim of the punishment is corrective (Chief Njelele 2000 interview; *cf.* Wilson 1988). The mere fact that one would be brought before the headman or the chief is deterrent enough for the community members to stop cutting down sacred trees. It is however important to note that trees, including fruit trees are sacred. Sacred trees tend to vary from one locality to another. This then gives leeway for immigrants, as they will profess ignorance of local traditional rules. Some trees used for burial purposes were also sacred and their use for firewood purposes was often seen as bringing bad luck. This helped conserve trees. Trees at the rain making ceremony site were also sacred. Cutting sacred trees is said to bring vengeance from ancestral spirits to the local communities. Trees close to graveyards were also not to be cut as they were considered to be sacred as they provided shade to the dead hence any violation would bring bad luck. Wilson (1988) and Cavendish (1996) (*cf.* McIvor 1989; Clark *et al.* 1996) name some sacred tree uses which include *Mubvumira (Kirkia acuminata)* talking to ancestors, *Muchakata (Parinari curatellifolia)* rain making, *Mukamba (Afzelia quanzensis)* for both rain making and talking to ancestors, *Mupfura (Sclerocarya birrea)* whilst *Chitarara* - provides shade on graves (McIvor 1989).

Some trees were left within the field to serve social purposes such as the provision of shade during the resting periods in the fields. Dangarembga (1988) points out that "there was always shade by the fields where clumps of trees were deliberately left standing to shelter us when we ate our meals or rested between cultivating strips of the land" (Dangarembga 1988: 2). What is needed is harmonisation of traditional natural resource management codes of conduct with the existing legislation. This was done with positive results amongst the Turkana in Kenya (Barrow 1987 in

Waters-Bayer 1995). Migration of some different ethnic groups into the 'new areas' and the "opening up" of frontier regions such as Gokwe resulted in the cultural melting pot which has seen the mixing of various cultures resulting in the erosion of some of the traditional conservation practices. Tradition is dynamic. Immigrants only helped to quicken and probably influence the direction of change.

Traditional leaders such as chiefs and headman have played an important role of "overseeing" the sustainable utilisation of the natural resources such as forestry. With the advent of independence in 1980 the government felt that the chiefs had been sympathetic to the colonial government hence they began to strip them of their powers. This was done through the establishment of the Village Development Committees (VIDCOs). These new structures announced through the Prime Minister's Directive of 1984, were meant to effectively take over the roles of the village head whilst the Ward Development Committee (WARDCO) was meant to unseat the headmen and chiefs. These structures have not been able to replace the traditional leader's role. One of the main reasons was that the traditional leaders commanded more respect as they were not elected but acquired their status through birth. The VIDCO and WARDCO leaders are elected. Some VIDCO and WARDCO leaders subsequently lose their seats in elections hence their command of local respect has been very minimal. This has meant that they have not been able to effectively enforce the management of resources such as forestry in the communal areas. Councillors, who are elected on a ward basis and represent the local people in the Rural District Council meetings, have not been successful in some instances, as they too do not command respect of the local people. On realising this anomaly the government passed the Traditional Leaders Act of 1998 which seeks to harmonise the roles of the traditional leaders with those of the elected leaders through the formation of Village Assemblies which are now being chaired by traditional leaders.

1.11. Local Natural Resource Management Strategies

Failure to sustainably manage natural resources in developing countries has often been blamed on the discarding of the local level resource management strategies as governments impose western generated wisdom (Warren, Slikkerveer & Brokensha 1995). In Zimbabwe some researchers have argued that the traditional or even the independent churches offer a potentially solid base for sustainable natural resource

management. Traditional religion has often been associated with fertility[17] and well being (Cox *Personal Communication* 11 December 2002) and this is why traditional practices such as *mutoro* are conducted in vegetated areas. Droughts or other misfortune are construed as some sort of punishment from God (*Mwari*).

The people of Zimbabwe have a long history of worshipping *Mwari* based at Matonjeni (Ranger 1966; Daneel 1970, 1998). In Gokwe the Nevana spirit medium in Nembudziya is very influential. There have been efforts to revive such traditional and religious natural resource management in the Masvingo area through the formation of the Zimbabwe Institute of Religious Research and Ecological Conservation (ZIRRCON) in 1988. ZIRRCON has two affiliate bodies, which are the Association of Zimbabwean Traditional Ecologists (AZTREC) and Association of African Earthkeeping Churches (AAEC) formed in 1991. They aim at "clothing the earth" (*kufukidza nyika*) (Daneel 1996) which will be done through planting of indigenous trees in order to appease the spirits and God respectively. Their broad objectives include afforestation, wildlife conservation and protection of water resources. These initiatives are said to have yielded positive results (Daneel 1998) and there are hopes of scaling it up to national level. The following section looks at an overview of the Indian forestry experiences. The Zimbabwean co-management was modelled along the Indian experience. A study tour was undertaken to India prior to implementation of co-management in Mafungautsi.

1.12. An Overview of the Indian Experience

Having introduced the research in Zimbabwe this section now looks at an overview of the Indian forestry experiences. India has come a long way in terms of forestry management. In 1894 the first forestry policy was enunciated[18] (FAO 1993; Schug 2000). Forests were to be conserved for both climatic and physical reasons. Forestry land was to be converted to agricultural purposes whenever there was pressure for

[17] Daneel (1998) points out that his research on the Mwari cult in Matopo shows that it has been mutating as the provider of rain, fertility and healing power to warlord of resistance to colonialism (*cf.* Ranger 1966, 1967; Cobbing 1977; Beach 1979) and a socio-political figure of resistance. It is important to note that there is no agreement on the contribution of the Mwari cult to the 1896-7 uprising.

[18] Arnold & Campbell (1986) also give an account of forestry in Nepal where forests were nationalised in 1957 to stop the process of deforestation. Up to the 1970s nationalisation did not stop degradation of forests prompting the government to introduce community-based forest management (*cf.* Chilundo & Cau 2000)

agricultural land. After the Indian independence in 1947 the government priority was on food self-sufficiency and this implied the conversion of forestland for agricultural purposes. The forest area was now failing to cope with the demand of the increasing population of 330 million in 1947 (FAO 1993; Schug 2000).

In 1952 the Second National Forestry Policy was launched. This policy acknowledged the impact of releasing forestlands for agricultural purposes. This policy even went on further to note the role of forests as not only being protective but also being productive. This resulted in 43 million hectares being cleared for agricultural purposes between 1951 and 1976 (FAO 1993). The Indian Forest Service was reconstituted in 1966 and 1977. The Forest Conservation Act of 1980 made it mandatory for the national government to approve the release of any Reserved Forest for non-forest use by the state government.

In 1986 the National Land Use and Wasteland Development Council was constituted to make policies on integrated land use, environmental protection and forest conservation. In 1988 there was another forest policy, which emphasised on the conservation of the forest rather than rural development. In 1990 the government introduced guidelines for Joint Forest Management (Government of India 1990). The committees created were known as Forest Protection Committees (FPC) or Van Suraksha Samitis (VSS) (Sundar 2000). By mid-1992 the protection of 1.5 million hectares of government forestland had been assigned to over 10 000[19] communities (Singh & Khare 1993: 281). With donor support, this was praised as an era of co-operation between the forest department and the local communities (Singh & Khare 1993; Schug 2000). The Zimbabwean experience will be drawing a number of parallels with the Indian co-management.

1.13. Organisation of the study

The study is organised around ten chapters. The first chapter has looked at the overall introduction, stated the problem statement, research objectives, outlined the research hypothesis, looked at the Indian case before presenting the organisation of the study.

[19] Agrawal & Saigal (1996) say these were estimated to be between 10000 and 15000 committees protecting over 1.5 million hectares of forest.

The second chapter looks at the historical background of forestry conservation in Zimbabwe. It then situates the forestry conservation within the broader conservation background. This helps to contextualise resource management issues outside forestry. Forestry resource management policy changes are often related to changes in other sectors within the broader resource base. This chapter further situates the history of conservation in Zimbabwe and the dual nature of the policies governing the commercial farming sector and the communal areas, with the latter being perceived as destroyers of the natural resources. This section will further highlight how the dual nature of forestry policy making has continued after Zimbabwe gained independence in 1980 (Nhira *et al.* 1998).

Chapter 3 conceptualises the co-management framework by looking at the definition of co-management within the framework of decentralisation. It will also come up with an operational definition for this research. This chapter will look at the powers transferred, accountability arrangements, environmental outcomes and social outcomes. This chapter will look at definitions of co-management (Dubois 1997; Hobley 1996; Wily 2000; Borrini-Feyerabend *et al.* 2000). Co-management will generally be regarded as a "situation in which two or more social actors negotiate, define and guarantee amongst themselves a fair sharing of the management functions, entitlements and responsibilities for a given territory, area or set of natural resources" (Borrini-Feyerbend *et al.* 2000: 7).

Chapter 4 analyses the issue of co-management in the context of the research area of Mafungautsi in Gokwe, Zimbabwe. This chapter will provide background and the set-up of the co-management programme in Mafungautsi. Co-management will be cited as a mode of implementation of the decentralisation process at a local level within the context of forestry resources. The overall decentralisation framework is pronounced at national level whereas the actual implementation of the national decentralisation policies is at a local level (Dubois *Personal Communication* 16 October 2001). This is then linked to the overall conceptual framework of decentralisation within the forestry sector.

Chapter 5 is on the Research Methodology, which links the research methods to the research objectives. This chapter will point out the participatory tools that were used. Triangulation was carried out as a built in mechanism of cross-checking the data collected from the respondents. Chapter 6 gives the overall background to the research area of Mafungautsi, which is in Gokwe South District of Zimbabwe. Gokwe South is a unique district even in terms of its settlement history hence the need to give the background information to enable the reader to have a general understanding of the broader context of the research site.

Chapter 7 starts off by analysing the two case studies beginning with Batanai followed by Chemwiro-Masawi. These will be described by giving a brief background, highlighting the formation process, operation of the RMC in the context of decentralised forestry management. The Chapter will conclude by offering a comparative summary of the two research sites. Chapter 8 gives an overview of the participatory GIS exercise results in Mafungautsi. Chapter 9 will give an overview of the research findings by relating the results to the overall framework of decentralisation. Chapter 10 will then highlight the recommendations and indicate areas for future research. The last section will comprise of references and annexes.

Chapter Two

Forestry Conservation in Zimbabwe

2.0. Introduction

The last chapter introduced the research topic. This chapter looks at forestry conservation in Zimbabwe going back to the colonial period. It begins by giving an overview of conservation in general. It then moves on to look at an overview of vegetation cover and the historical development of forestry management and the establishment of the FCZ. The establishment of forest reserves is also outlined, followed by the land tenure arrangements and its implications for communal area forestry management. By way of conclusion, the chapter gives an overview of agro-ecological regions in Zimbabwe in order to contextualise the environmental history.

2.1. Forestry Development History in Zimbabwe

The history of forestry development in pre and post independent Zimbabwe has a trajectory conflated by a plethora of inconsistencies and contradictions. In the pre-colonial era natural resources were managed in the interest of the community. This type of management was based in customs, taboos, religion and clan name system (Schofelleers 1979; *cf.* Wilson 1986, 1989; Cavendish 1994). The traditional leader always had to consent to the harvesting of natural resources and wildlife (Sibanda 2001). Among the Shona groups it became a tradition that the elephant tusk which was closest to the ground was to be given to the chief (*ishe*) or king (*mambo*). Sibanda (2001) and MacKenzie (1988) further point out that people could not kill animals, which were part of their totems (*cf.* Beatie 1966; Mair 1974, 1984). This was, arguably, a mechanism of conserving different animal species. Such traditional values, practices and indigenous knowledge systems were downgraded to retrogressive mechanism, which were thought to be retarding *complete acceptance of more progressive views* (Phillips *et al.* 1962). In Phillips *et al.'s* words;

> The bewilderment and irritation generated by the government's protection of wild animals are understandable, when it is realised that these self-same animals may damage crops and be a source of danger and yet, because of the law, are the source of negligible morsels of meat only (Phillips *et al.* 1962: 303).

Paul Richards (1983) cites the lack of understanding of the African context by citing E.W. Bovill (1920)'s comment that the Saharan desiccation was caused by "the evil ways of the shifting cultivator" (Richards 1983: 22). It is however important to note that during the 'Dust Bowls' in the United States some academics such as Dudley Stamp (1938) acknowledged the important role and appropriateness of the African methods of soil conservation,

> A recent tour of Nigeria has convinced the writer that the native farmer has already evolved a scheme of farming which can not be bettered in principle even if it can be improved in detail and that, as practised in some areas, this scheme affords almost complete protection against soil erosion and loss of fertility. It may be that the African has thus a contribution to make towards the solution of the great soil erosion problems of other regions (Richards 1983: 25).

People in the communal areas, according to Phillips *et al. (*1962) were further confused by the conflicting government signals towards natural resource management. Animals in areas such as Gokwe were shot in large numbers in the anti-Tsetse era yet it is now illegal to kill wildlife.[20] One of the suggestions for improving wildlife management in the then Tribal Trust Land (now Communal Areas) was for "Education of the people on the need for and advantages of conserving wild life, including fish" (Phillips 1962 *et al*: 304).

One important observation in the Phillips *et al.* (1962) report was that there was a need to meaningfully involve the people in the then Tribal Trust Lands[21] to benefit from wildlife conservation in the form of meat and cash. The report pointed out that within the forestry sector it was important to find ways of winning the co-operation of the rural African communities in conservation. Furthermore Phillips *et al.* (1962) pointed out that the incorporation of African communities had to be done in view of the ever-escalating costs of protection. Although the need for community involvement was apparent, fortress conservation was viewed as the ultimate solution. As a result the reports still emphasised that the FCZ was the viable vehicle for resource management.

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[20] Nygren captures a similar scenario in the Costa Rican forestry where contradictory advice was given to people. 'First, the people of Alto Tuis were urged to clear the forest for development; today they are advised to plant trees in the name of development (2000: 28). This has been the tragedy of rural development policy inconsistencies.

[21] TTL were re-named communal lands after independence in 1980.

> An ever-present and most refractory problem is the finding of funds adequate to implement a policy of protection, planned exploitation and silvicultural improvement (Phillips 1962: 65).

Natural resources were considered as one of the means for national development. For this reason there was need to protect the indigenous forest. For example the availability of high value timber species such as 'Teak' (*Baikiaea plurijuga*) was used as a justification for investing resources in protection of indigenous forestry resources.

Another justification for spending resources on the indigenous resources was the aesthetic factor. Indigenous resources such as forest reserves were seen as an important foundation for the establishment for tourist ventures. The FCZ in Zimbabwe, alongside the department of national parks, now operate lodges and tourist services. The initial thrust was to promote "Western World" type of tourists.

Traditional conservation practices were also prevalent for species such as fruit trees and those used for performing burial rituals were not to be cut (Chief Njelele 2000). Interviews with respondents in the field further corroborated this evidence. This was a management regime with its own merits and strengths if promoted. It is this management regime and structure, which seems to have been misunderstood by both the colonial and postcolonial administrations. The colonial administration assumed that the natural resources in the communal areas were open access and were a clear demonstration of "Tragedy of the Commons" thesis (Hardin 1968).

Taking away ownership of natural resources from the local people resulted in contestation of ownership. Local people did not see the central government as the rightful owner of the resources. However, alienation of people from their natural resources had the effect of inciting local people to 'steal' from the state (Sibanda 2001). In such cases, even traditional leaders, who were former guardians of natural resources, felt stealing from the state was justified.[22] This then degenerated into some form of open access. One could argue that the intervention of the state resulted in the degeneration of the common property into an open access where the people in

[22] Klooster (2000) notes that rural communities who would normally not steal from their neighbour will find it justifiable to steal trees from the state.

rural areas felt that power to control natural resources had been taken over by the state.

Surprisingly, the post-independence governments in Africa parody the colonial governments, and continue to view the African farmers as the destroyers of the natural resources (Hulme & Murphree 2001).

Mackenzie (1988) argues that exploitation of wildlife was accelerated during colonisation due to the access to better arms, which meant that fewer people could now kill more animals. The Native Commissioner's report confirms this,

> Game has been slaughtered in great quantities and poaching has been rife in localities where 'Fly' has never existed nor has been suspected to exist. The worst offenders are undoubtedly the poorer class of Boers who club together to raise a wagon and span of donkeys, taking out one licence between them (or none at all) and proceed to exterminate every four footed animal, large or small of which the hide or flesh are of any value to them (Native Commissioner Report Sebungwe-Mafungabusi for the year ended 31st December 1914.).

MacKenzie (1988) further argues that it was the colonial states themselves who embarked on massive wildlife killing citing the activities of hunters such as Frederick Selous, Thomas Baines, George Phillips, Henry Hartley and George McCabe who were said to have killed hundreds of elephants. Mackenzie further points out that loss of land resulted in the increased dependence on hunting, as was the case in Rhodesia[23] and even amongst the Khoi Khoi but these were hunting and gathering who always depended on hunting anyway. Jason Machiwanyika (undated) lamented the loss of game due to settler hunting;

> Europeans took all guns from Africans and refused to let them shoot game. But Europeans shoot game. If an African shoots an animal with a gun, the African is arrested and the gun is confiscated (Machiwanyika cited in Mackenzie 1988: 141).

The exploitation of wildlife and natural resources was not unique to the present day Zimbabwe but also countries in Africa such as South Africa, Zambia, Malawi, the East African region and India were also subjected to the same levels of exploitation

[23] Zimbabwe, from 1890 when it was colonised by Britain, it was called Rhodesia, named after Cecil John Rhodes who spearheaded its colonisation. Rhodesia was the name used from 1890 to 1980. The exception was from 1953 to 1963 when it was called Southern Rhodesia when it joined to form a federal government with Northern Rhodesia (now Zambia) and Nyasaland (now Malawi).

(Mackenzie 1988). Mackenzie further illustrates this with an advert by the Uganda Railway,

> The Highlands of British East Africa...has become a fashion sportsmen in search of BIG GAME make it a hobby (Mackenzie 1988: 200, capitalisation in the original *cf.* Steinhart 1989).

The change from massive animal killing to conservation was a response to the Convention for the Preservation of Wild Animals, Birds and Fish in Africa of 19 May 1900 and the Protection of the Fauna and Flora of Africa of November 1933 (MacKenzie 1988).

2.2. Post Independence era

Zimbabwe inherited one of the most unequal economies in the world. It also inherited a battery of legal and structural constraints designed to prevent it from changing the situation fundamentally (Stoneman 1988). This dual nature pervaded all sectors of the economy, which included natural resource management. Legislation further entrenched the dichotomy between communal and commercial farming areas - and to some degree, rural and urban areas. Policies within the forestry and wildlife sector were generally closely linked.

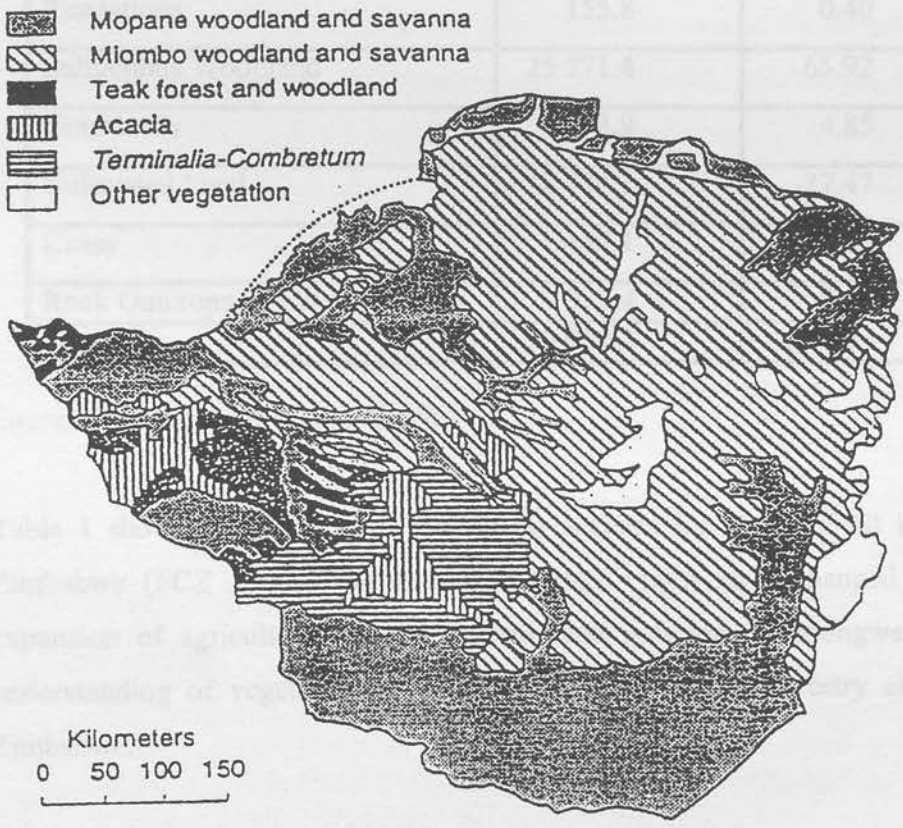
Forestry policy dates back to the colonial period in most African countries (Malaya 1996). Malaya (1996) further describes these policies as being command and control, top-driven, coercive and punitive. Sibanda (2001) points out that wildlife management in the past 50-100 years had placed excessive emphasis on "the protected areas and law enforcement, on preventing communities from using the resource and promoting exclusively Western aesthetic values" (Sibanda 2001: 4). This approach resulted in the loss of value of natural resources to the local people. This view from the wildlife sector is similar to the approach taken within the forestry sector, which saw the creation of forestry reserves or gazetted forests in Zimbabwe. Kibreab (2001) argues that it is the state's interference with customary tenurial rights rather than communal property rights that has resulted in the degradation of communal resources (Kibreab 2001). A historical analysis of indigenous resource management seem to point out at success stories in the past which do not seem to be in tandem with what happened with the onset of central

government control of the local resources[24] (Dore in Dore & Chafota 2000; (*cf.* Bromley & Cernea 1989, Bromley 1991; Chipepo 1998). In order to contextualise conservation history in Zimbabwe an understanding of the vegetation cover will be important. It is in this light that the next section moves on to an overview of vegetation cover in Zimbabwe.

2.3. An Overview of Vegetation Cover in Zimbabwe

Zimbabwe consists mainly of the Miombo woodlands. "Miombo is a colloquial term, now widely used in literature to describe those central, southern and eastern African woodlands dominated by the genera *Brachystegia, Julbernardia* and/or *Isoberlinia*. These are three closely related genera from the legume family (Fabaceae, subfamily Caesalpinioideae) (Campbell, Frost & Byron 1996).

Figure 1: Common Vegetation Types in Zimbabwe



Source: Department of Natural Resources (1961) after Ratray & Wild

[24] This is a controversial issue with some academics arguing that there was never any sort of resource management BUT it was a case of an abundance of resources in the face of small populations (Dore 2000). Some academics argue that there was and there are still some genuine attempts of local communities managing their natural resources (Hulme & Murphree 2001).

The Miombo woodlands cover an estimated area of 2.7 million square kilometres in southern, central and eastern Africa (Frost 1996). These woodlands are crucial to the livelihoods of many people (Gambiza *et al.* 2000). Figure 1 shows the common vegetation types in Zimbabwe.

Vegetation cover is rather dynamic. There have been lots of changes in vegetation cover in areas such as Gokwe due to the opening up of woodlands for cotton cultivation. This was made easier with the eradication of Tsetse fly with the assistance of the European Union (EU). Table 1 shows the distribution of different land use systems in Zimbabwe.

Table 1*: Areas under Various Land Use Systems in Zimbabwe*

Land Use	**'000' Hectares**	**Percent**
Tropical rainforest	11.5	0.03
Plantations	155.8	0.40
Indigenous Woodland	25 771.4	65.92
Grasslands	1 893.9	4.85
Cultivated Land	10 738.1	27.47
Cities	139.1	0.36
Rock Outcrops and Water Bodies	379.4	0.97
Total	**39 089.2**	**100.0**

Source: Forestry Commission (1996).

Table 1 shows that indigenous woodlands account for 65 % of all land uses in Zimbabwe (FCZ 1996). The current coverage might have changed due to the expansion of agriculture and the current land invasions (Marongwe 2002). An understanding of vegetation cover gives an indication of forestry challenges in Zimbabwe.

2.4. Plantation and Indigenous Forests

Zimbabwe's indigenous vegetation is complex. Zimbabwe mainly comprises of the wooded savanna and savanna woodland with pockets of the montane forest in the Eastern Highlands. Plantation forestry is concentrated in the Eastern Highlands of Zimbabwe (Philips *et al.* 1962, Nhira *et al.* 1998). This is mainly due to the climatic

differences. The Eastern Highlands have an altitude of between 900 and 1700m above sea level and an average rainfall of over 1 000 mm per annum making them more suitable for timber plantations, coffee and tea growing. The need for growing coniferous trees in this area was justified on the grounds of the dangers of relying on imports as realised during the Second World War, which ended in 1945. The eastern highlands are unsuitable for other agricultural activities due to their terrain. This was then seen as a way of protecting land from soil erosion.

Soil erosion has been cited as one of the most serious ecological challenges facing Zimbabwe (Whitlow 1988, Magadza 1990). Magadza (1990) further points out that rates of erosion as high as 100 tonnes per hectare per annum have been measured. The most degraded areas in Zimbabwe are Masvingo, Middle Save and Mutoko (CSO 2000). Conclusions were quickly drawn even where the 'experts' admitted not having carried out first hand inspections (Guest 1948) but still made recommendations based on assumptions. Protected areas and conservation practices are seen as a solution to the reduction of soil erosion. Zimbabwe, like most of Africa, is perceived to be facing an "ecological crisis" that is part of a more general agrarian-political crisis (Richards 1983). Showers (1989) echoes the same views on Lesotho. The next section now looks at the colonial administration of forestry.

2.5. Colonial Administration of Forestry

The commissioning of J. Simms in 1909 to make recommendations on the exploitation and management of forestry resources in Southern Rhodesia marked the birth of a colonial forestry policy in Southern Rhodesia. The background to his recommendations can be traced to when the British South African Company (BSACo.) occupied what was called Fort Salisbury on 12 September 1890 hoping to get a Second Rand.[25]

> It was believed that the success of gold and diamond mining in South Africa could be repeated further north, and the right to administer and exploit the region was won by Cecil Rhodes and his (BSAC) which had received a royal charter in 1889 (Middleton 1997: 336).

With the failure of getting a second Rand the settlers embarked on agriculture as the next best option (Middleton 1997; Phillips *et al.* 1962). Cecil John Rhodes who was

[25] Large gold deposits were discovered in the Rand area in South Africa. There was a general belief that there were similar gold deposits in the present day Zimbabwe.

at the helm of the British South African Company (BSACo) felt that effective occupation could be achieved through the construction of railway transport. He even dreamt of the Cape to Cairo railway link. The construction of the Bulawayo-Victoria Falls Railway line helped to expose the uneconomic ways in which timber was being exploited by Baerecke and Kleugden, a South African company (Phillips *et al.* 1962, Judge 1993). "Timber mining"[26] was being practised by a number of logging companies. Timber mining resulted in the commissioning of J. Simms in 1909 to make recommendations on the exploitation and management of forestry resources in Southern Rhodesia (Phillips *et al.* 1962, Nhira *et al.*, 1998).

> There is a tremendous amount of cutting down of timber by Natives for their huts, cattle kraals and grain drying platforms. The Scrub is now beginning to take over in portions denuded. From information, some mines are also guilty of this indiscriminate felling of timber (Guest in a letter/memo dated 20 August 1948).

Simms's 1910 Report is the beginning of colonial forestry policy in Zimbabwe. The report recommended amongst other things the establishment of exotic plantations in the Eastern Highlands and the appointment of a Forestry Officer. In 1920, Mr J.S. Henkel was appointed the first Forest Officer in the Ministry of Agriculture. Due to the rampant timber logging methods Henkel recommended the establishment of a Forestry Department. In 1925 E. K. Kelly Edwards was appointed Assistant Forestry Officer and later took over from Henkel on his retirement in 1931 (Judge 1993). It is interesting to note that at this stage the main culprits of 'timber mining' were the commercial logging companies. In 1941, one of the District Forest Officers for Matebeleland, Mr Wilkinson produced his 'Report on the Rhodesian Teak Forests of Western Matabeleland'. According to Judge, (1993) one of the eight objectives of his report was to propose areas to be reserved.

The most important aspect of his report covering 38 years to 1979 was the recommendation that forest had to be set aside or reserved (Judge 1993). As the Forestry Department was under the Ministry of Agriculture, Nhira *et al* (1998) point out that implementation of forestry policies relied heavily on the agricultural extension officers operating within the then Tribal Trust Lands (now Communal Lands). Wilkinson's report lamented the low levels of funding for the Forestry

[26] "Timber Mining" is a term used for the unsustainable exploitation of timber for short-term gains or profits.

Department. By 1958, largely through Mr Armitage's efforts the multiple land use in forestry was put forward. This entailed use of forests in a 'holistic' manner, which entails grazing, bee-keeping, wildlife, tourism and tenant farming. It was felt that forest had to generate revenue or be destroyed (Judge 1993). Its amazing how the same concept cropped up in the post 1980 period where the community participation narrative took the centre stage (Hulme & Murphree 2001).

Other relevant pieces of legislation pertaining to forestry in Zimbabwe include the Native Reserves Forest Produce Act of 1929. This Act allowed the people staying in the Native Reserves (later called Tribal Areas and now called Communal Lands CLs) to exploit forestry resources to meet their subsistence needs only. Any commercial trading of forestry products and minor forestry products had to be regulated by the state. The other important Act is the Land Apportionment Act of 1930, which made for the provision of setting aside of forest areas. The Forest and Herbage Preservation Act of 1936 also made it possible to protect certain plant species.

2.6. The Establishment of the Forestry Commission

This section shows that the Forest Act of 1949 and its subsequent amendments resulted in the creation of the Forestry Commission. The Forestry Commission is a parastatal body under the Ministry of Environment and Tourism. The Forestry Commission was formed in 1954 with the passing of the Forestry Act in 1949 which was passed through Forest Amendment Act Number 28 of 1953 to make way for its establishment under the then Ministry of Lands. One of its main mandates was to implement the government's strategy in forestry. It was later moved to the ministry of Environment and Tourism. The mandate of the Forestry Commission according to the Forestry Act is to:

- Control and manage state forests;
- Protect private forests, trees and forest produce;
- Control the cutting and taking of timber;
- Conserve timber resources;
- Regulate compulsory forestation of private land;
- Regulate and control of trade in forest produce; and
- Create an institutional framework for the above.

In 1948 the Research Branch was created as a result of the need to collate accumulated growth and silvicultural data in order to manage and exploit indigenous timber from the Kalahari Sand Forests (Barnes 1993).

The present day Forestry Commission's mission statement states:

> Our business is supporting sustainable development through research, training, tree planting, management of the nation's forests and investment in forest-based industry and commerce. We strive to provide Total Quality in products and services to satisfy our various customers. Our employees are our strength and we believe their growth is the growth of the organisation (Forestry Commission Mission Statement 1998).

The mission statement above sounds like a continuity of the old Forestry Commission mandate and does not even mention community participation. It is more or less like any corporate mission statement in the private sector. The thrust of the forestry policy throughout this time was on industrial forestry. Not much effort was put on the management of woodlands in the communal areas (Scoones *and Matose* 1993, *cf.* Nhira *et al.* 1998). The first forestry policy for the tribal areas (now Communal Lands) was the 1968 Policy that advocated for the establishment of woodlots in tribal trust areas through the provision of nurseries. The forestry challenges within the rural areas, it was thought, could be easily solved through the provision of tree nurseries which in most cases where the *eucalyptus* species. Ground implementation did not begin until in 1978. Even in the Philips *et al.* (1962) Report the issue of forests was viewed from economic point of view where more value was placed on timber for making railway sleepers and for the curing of Virginia tobacco which was grown on the commercial farms. There was little attention on the use of firewood in the tribal trust lands which are now the Communal Lands and other religious values of the forests (Daneel 1989, 1996, 1998; Ranger 1989).

Beinart (1989, 1999) argues that there is a need to view the natural resource and conservation issues and appropriation of natural resources as central elements in the understanding of human history. This is why it is almost impossible to de-link environmental history from the politics and decisions which interacted with the environment in various ways producing various outcomes. Some researchers believe that environmental policies were contributing factors towards the fight against colonialism in Zimbabwe (Ranger 1966, 1989; Beinart 1984, 1989, 1999).

Rodney (1974); MacKenzie (1997) and Beinart (1999) argue that colonialism was a pretext for exploiting resources in developing countries. The fact that the first investigations into forestry issues in Zimbabwe was as a result of the overexploitation of timber along the Victoria Falls Railway line shows how far the settlers and settler institutions were determined to exploit resources within Zimbabwe as was with other countries in Africa. This was not only unique to Africa as Greenblatt (1991) points out how Spanish *conquistadores* claimed pieces of land by striking down trees with their swords. The experience world-wide is not very different (Kjekshus 1977; Crosby 1986; MacKenzie 1988). MacKenzie (1997) points out the reduction in wildlife numbers due to the coming in of the colonial regimes. Even local African people were absorbed into commercial trading of wildlife. This was also true in colonial Zimbabwe where wildlife killing was labelled elimination of vermin in the process of opening up of frontier regions (MacKenzie 1988; Mutwira, 1989; Murombedzi 1994a; Musanika-Ncube (interview 1 September 2000). In colonial Zimbabwe people engaged to eliminate wildlife were called "*amagotsha*" (Musanika-Ncube 1 September 2000; *cf.* Ford 1971). Mutwira (1989) further cites the Report of the Department of Agriculture for the years ended 1903-1912 in the then Rhodesia which allowed for the mass slaughter of wildlife and 100 000 dogs to prevent the disease such as rabies (dogs) and foot and mouth (buffaloes) and general crop and livestock destruction on commercial farms. Other animals regarded as vermin included hyenas, cheetahs, wild dogs, baboons, lions and leopards (MacKenzie 1988; Mutwira 1989; Murombedzi 1994a). Henry Hartley is reported to have killed between 1000 and 1200 elephants in his hunting career (Mutwira 1989). A Native Commissioner in Zimbabwe lamented the role of white opportunists in the exploitation of wildlife in the Mafungautsi area, which still had wildlife as compared to heavily settled areas by then.[27]

Beinart (1999) further notes that having destroyed most of the natural resources in the new colonies the colonial governments later realised that the natural resources were being seriously eroded. They then began implementing some form of colonial environmental management, which at times, were based on wrong 'scientific'

[27] *Cf.* Native Commissioner's Report Sebungwe-Mafungabusi for the year ended 31st December 1914).

assumptions as some researchers have shown (Beinhart 1984, 1989; Drinkwater 1989; Tiffen, Mortimore & Gichuki 1994a, 1994b; Leach & Fairhead 1996).

> Approaches to forestry, it has been argued, were drawn from the scientific and commercial models of Europe and India, which excluded rural people (Ravi Rajan cited in Beinart 1999: 5).

Scientific knowledge has been embedded in broader political and cultural agendas and that interventions have seldom been socially neutral.

In Zimbabwe the FCZ has often been bedeviled with the contradicting positions of being a regulator of the forestry sector as well as being a player in the commercial plantation activities (Bradley & MacNamara 1993, Katerere, Moyo & Mujakachi 1993, Nhira *et al.* 1998). There have been changes to the Forestry Commission Policy in 1955, which was modified in 1962, 1981 and 1990. Katerere, Moyo & Mujakachi (1993) point out that the Forestry Commission's operations can basically be divided into state and non-state activities. Figure 2 shows the divisions within the Forestry Commission.

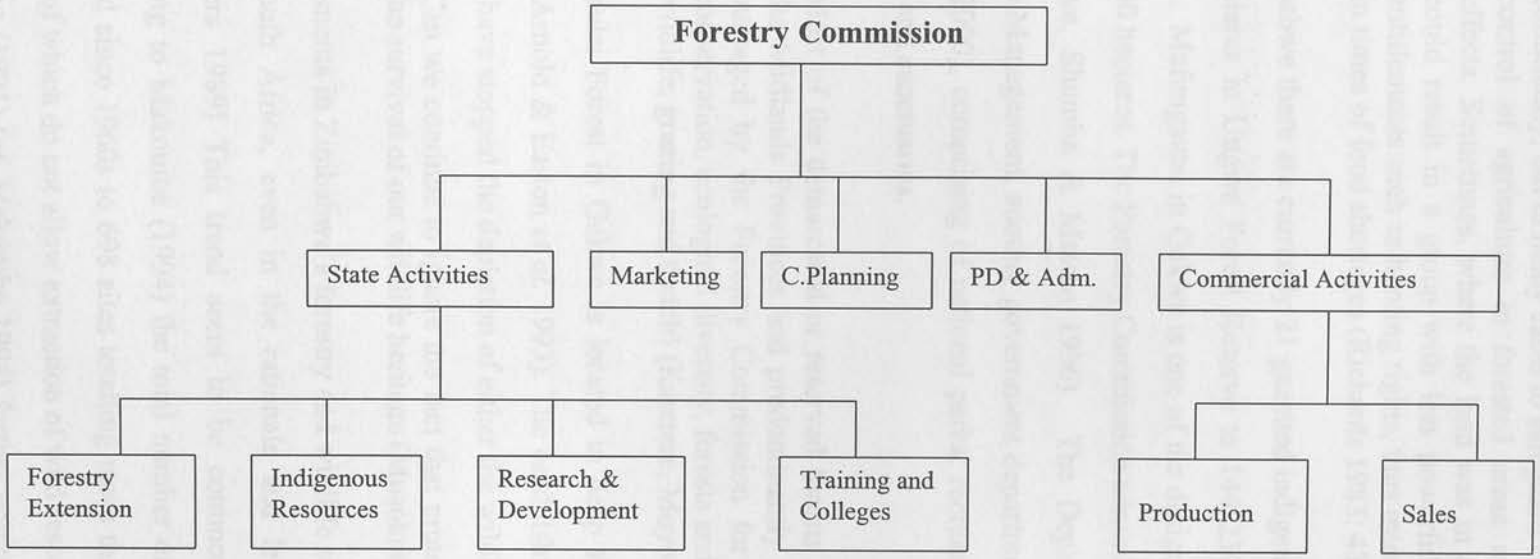
Currently the Forestry Commission is undergoing some restructuring in line with the government's call to reduce government expenditure. With the current financial crisis, which has seen the withdrawal of major donors and Bretton Woods[28] institutions funding to Zimbabwe, this has caused financial difficulties for the Forestry Commission. This precarious situation is not unique to the Forestry Commission alone but it has affected the operations of many ministries and government departments. A number of departments have been merged to form single units as a way of streamlining their operations. Under the state activities, Forestry Extension (which was responsible for the Mafungautsi Forest when co-management or resource sharing were introduced) has been merged with the Indigenous Resources division. Research and Development Division has been merged with the Training and Colleges Division. At present most of the streamlining

[28] This study is not an evaluation of the contribution of the Bretton Woods Institutions to the development or lack of development in Zimbabwe. For the Forestry Commission, however, withdrawal of its balance of payments support and the subsequent donor withdrawal has worsened the situation up to instances where Forestry Commission workers were getting delayed salary payments due to cash flow problems. In the past the FC has benefited from funds from CIDA, GTZ and the World Bank.

has been approved by the Forestry Commission Board but the Cabinet has to make the final decision.

Units such as Ngamo Safaris which is the Commercial arm, has been making profits from tourism within the gazetted forests mainly during the pre-2000 tourism boom. Tourist numbers have been going down since the land invasions began in 2000.

Figure 2: Forestry Commission General Structure (1999)



C. Planning: Corporate Planning

PD & Adm: Personnel Development and Administration

2.7. The Establishment of Forest Reserves and National Parks

> Colonial forest reservation, a subject standing in need of detailed attention by historians, is also relevant to the problem of vulnerability to hazards. Although often undertaken as a conservation strategy (on behalf of the local community, but in many cases to safeguard commercially exploitable timber) control of agriculture in forested areas might produce unintended side effects. Sometimes, where the land was in disputed ownership, reservation could result in a group with less powerful representation losing residual entitlements such as hunting rights, thus intensifying difficulties experienced in times of food shortages (Richards 1983: 43).

In Zimbabwe there are currently 21 gazetted indigenous forests ranging in size from 567 hectares in Ungwe Forest Reserve to 144 230 hectares in the Gwaai Forest Reserve. Mafungautsi in Gokwe is one of the designated forests and has a total area of 82 100 hectares. The Forestry Commission administers a total of 800 258 hectares (Mushove, Shumba & Matose 1996). The Department of National Parks and Wildlife Management, another government department, controls 5 405 500 hectares (CSO 2000), comprising of national parks, recreational parks, botanical reserves, gardens and sanctuaries.

> Most of the demarcated or reserved forests are in Matebeleland North and the Midlands Provinces and predominantly in Natural Region 4. They are managed by the Forestry Commission for the protection of watersheds, conservation, ecological diversity, forests and forest produce (such as timber, wildlife, grazing and thatch) (Katerere, Moyo & Mujakachi 1993: 27).

Mafungautsi Forest in Gokwe is located in deep Kalahari sands, which are very fragile (Arnold & Easton *et al.* 1993). The establishment of these reserves does not seem to have stopped the depletion of either the wildlife or forestry resources.

> Can we continue to ignore the fact that protection alone does not safeguard the survival of our wildlife heritage (Musokotwane in Makombe 1994: 1).

Developments in Zimbabwe's forestry and wildlife sectors seemed to be taking cues from South Africa, even in the rationale and legal framework (Philips 1962; Carruthers 1989) This trend seem to be common throughout most of Africa. According to Makombe (1994) the total number of protected areas in Africa has increased since 1960s to 698 sites totalling more than 134 million hectares and 67 percent of which do not allow extraction of wild resources by the local communities. Cumming (1991) (*cf.* Makombe 1994) further points out that in some countries, as much as 18 percent of the land is set aside as "protected areas". The Transboundary

initiatives agreed to by Mozambique, South Africa and Zimbabwe in December 2002 has further consolidated national parks into larger units comprising of Limpopo, Kruger and Gonarezhou respectively[29]. The move by some environmental Non Governmental Organisations (NGOs) to buy land for conservation purposes has further increased the proportion of protected land (Saruchera *Personal Communication*, October 2002). In order for the conservation history to be understood within its perspective, the following section is on the background to Zimbabwe.

2.8. Background on Zimbabwe

Zimbabwe is a land locked country in the southern part of Africa. Mozambique borders it in the east, Zambia in the North, South Africa in the south. Its location is between South Africa and Zambia. Its lies between latitudes 21 and 23 degrees South of the equator and longitudes 30 and 32 degrees East. It covers a total area of 390 580 square kilometres of which 3 910 square kilometres is water. The total land boundary is 3 066 kilometres (km) distributed as follows: Botswana 813 kilometres, Mozambique 1 231km, South Africa 225km and Zambia 797 (CSO Fact Sheet, ecoweb.co.zw).

Prior to 1890 Zimbabwe comprised of different empires or kingdoms (Beach 1980, 1984). At the beginning of the 19th Century, the present day Zimbabwe was largely occupied by Shona speaking cultivators and herders (Atieno-Odhiambo 1973). The Nguni and Zulu speakers moving northwards in the 1830s from the Cape area in the *Mfecane*[30] period later joined them. The Ndebele settled in Zimbabwe around 1850 (Middleton 1997). On 22 October 1889, the Queen gave a Charter to the British South African Company. In 1890 the British South Africa Company (BSACo) began its rule after signing the Rudd Concession of 1889 with King Lobengula. The concession was initially signed with Lippert a hunter in 1889 and subsequently was bought off by Cecil John Rhodes and this was ratified with Lobengula in 1891. When mineral prospects were not forthcoming the BSACo then began to acquire

[29] See The Herald 27 November 2002 and Musengeyi in The Herald of 11 December 2002.

[30] This was during the *time of trouble* when the Zulu people migrated northwards, partly due to the loss of land as settlers alienated land from the local people and partly due to the expansion of the Zulu empire under Tshaka.

land in 1902 for farming as a last choice. In 1894 Native Reserves[31] were created. By 1913, a total of 104 reserves varying in size from 2 024 hectares (ha) to 607 287ha had been established (Rukuni Commission 1984; *cf.* Nelson 1975). Reserves were set aside for the local people to occupy the marginal agro-ecological regions. In 1914, the Robert Croydon Reserves Commission further reduced these reserves by six million hectares. In 1896 a hut tax was imposed followed by a Pass Law of 1902. Native Commissioners collected tax and recruited labour. In 1901 the Native Marriages Ordinance was passed which required that patriarchs accept a cash-based bride-wealth, in lieu of services, and burgeoning migrant labour markets allowed young men to earn sufficient cash (Hughes 2001b).

The need to create pools of labour reserve meant that the resultant environmental degradation due to the high population pressure was not addressed (Gore, Katerere & Moyo 1991). The later role was lost to the Native Labour Bureau of 1903. Chiefs were incorporated into the administrative structure where they were to work together with Native Commissioners. It was due to the land appropriation that gave rise to the First Chimurenga of 1896. In 1898 the British Government evoked an Order in Council which required the Company to create Native Reserves for the native Zimbabweans. This was to be the beginning of the dual agricultural system in Zimbabwe (Rukuni Commission 1994).

The Native reserves were set up in agriculturally marginal areas that were left when land was taken for commercial farming purposes. Native commissioners were appointed to manage these areas. This was to be the main cause of white economic dominance and black poverty for the natives in reserves (Herbst 1990; *cf.* Rukuni Commission 1994). The Native Reserves Commission of 1914 recommended that the natives be given less land in order to accommodate large farms for whites coming from abroad to settle. Loss of land and the introduction of the hut tax in 1896, some researchers have argued, were meant to 'force' rural people into the labour market (Ranger 1970; Rukuni Commission 1994). As long as the people had enough resources, they would not be willing to provide labour to the mines and

[31] These were areas reserved for habitation by the local population. These need to be distinguished from Forest reserves or gazetted forests which are areas set aside for forestry purposes on ecological grounds.

commercial farms. Separation of land tenure along racial lines was further consolidated with the passage of the Land Apportionment Act of 1930. In 1945 commercial farmers numbered 3 699. The figure rose to 6 255 in 1955 due to a number being given land for fighting in the Second World War.[32] In 1951 The Native Land Husbandry Act was passed whose intention is often believed as to 'enforce private ownership of land, destocking and conservation practices on black smallholders' (Rukuni Commission 1994: 10). This was subsequently scrapped in 1961 due to the widespread resistance. In 1965 the Native Reserves were re-named Tribal Trust Lands. In 1969 the Land Tenure Act was passed to repeal the Land Appropriation Act of 1930. This divided the land area in Zimbabwe into 50 percent white area and 49 percent black areas.

The 1982 Communal Lands Act sought to re-name the TTLs to Communal Lands. There were no major legal changes in this piece of legislation. The other highlights of land legislation is the 1985 Land Acquisition Act which gave the government the first right of refusal whenever commercial farm land was to be sold. In 1990 the Land Acquisition Act was repealed with another act which sought to acquire 5 million hectares of land. This has since been amended in 2000 to cater for the government's fast track Land Resettlement Programme.[33] The overview in terms of land issue has been given as there is an intractable link between the land question (Katerere *et al* 1993; Moyo 1996) and the issue of natural resources management under which forestry falls. Dealing with land issues has direct repercussions on the conservation of forestry resources.

The "Shona" an administrative officer wrote, are essentially agriculturists. They are of the earth, earthy (*vana vevhu*). Agriculture to the Native is not an occupation or a trade. It is a mode of life (E.D. Alvord: 13 in Ranger 1970). This mode of production was, however, threatened by white requirements of labour on the farms and mines.

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[32] A letter from P. Hinder in the department of lands dated 25 August 1944 pointed out that "This department has no wish to move Natives from place to place in Rhodesdale Estate unnecessarily but at the same time must of course ensure that land likely to be required for post War European settlement is not unduly occupied or spoilt by Native occupation" (Reports 1/26/48).

[33] This research was not conducted on the 'land question *per se* (Moyo 1986) but will highlight land issues in as far as they impinge on natural resource management as these two are closely related.

The history of conservation in Zimbabwe cannot be separated from the land issue due to the intricate linkage between these two sectors. When the colonial settlers came to Zimbabwe most of the areas were regarded as untamed.

> But conservation in the African context should not be seen merely in terms of nature conservation; it is also an important part of the reform process in land tenure systems, land-use patterns, and land management practices. It is primarily in relation to the control of man's exploitation of environmental resources that conservation has its greatest relevance" (Areola 1987: 277).

In the early years people were rewarded for killing wildlife, which was regarded as vermin (MacKenzie 1988; Murombedzi 1994a; Musanika-Ncube interview 1 September 2000). For those who had guns they would get more bullets on the production of evidence of killing wildlife.[34] Murombedzi (1994) goes further to outline the financial reward associated with killing various animal species.

The racially motivated pieces of legislation such as the Land Tenure Act of 1969 resulted in unfair land distribution. Table 2 shows the distribution of land according to the Land Tenure Act.

[34] Interview with Musanika-Ncube of Gokwe on 10 March 2001.

Table 2: Land Distribution according to the Land Tenure Act of 1969

Land Category	Area (hectares)	Percentage of total
European Land		
General Farming	15, 337096	39.4
Other - Parks, Forests etc.	2, 768 020	7.1
	18 145 116	46.5
African Land		
Tribal Trust Lands (TTL)	16, 291 670	41.7
African Purchase Area (SSCF)	1, 415 921	3.6
Other - Parks, Forests etc.	494 617	1.3
	18, 202.084	46.6
State Land	2, 727 617	6.9
Total Zimbabwe	**39, 074, 817**	**100.0**

Source: Moyo 1986.

There have been efforts to change this land imbalance since independence in 1980.[35] Land available for forestry purposes tends to be the leftover from agricultural activities. The forestry degradation narratives have to be viewed within the context of the land policies in Zimbabwe, which can be traced back to the colonial administration of the then Rhodesia. It is ironical that the current Zimbabwean government with different justification has perpetuated the oppressive regime of legislation. Fairhead & Leach (1996) argue that widely held views on environmental change might be misleading. The centrality of agriculture to forestry policy world-wide can be discerned from the Food and Agricultural Organisation (FAO) which launched the Tropical Forestry Action Plan in 1985 which emphasised the role of forestry in agricultural production with the aim of reducing deforestation at the same time (Malaya 1996). The current status of forestry is a result of a long process of land tenure engineering. This has to be viewed even in the way peasants exploited natural resources whether legally or illegally (Matowanyika 1997).

[35] Since 2000 there has been seizures of commercial farming land by government supporters and war veterans. Due to the politicisation of the whole process it is difficult to get the actual figures of land acquired since the land invasions began.

Land distribution affects land use and problems arise as vegetation is caught in the crossfire. Forestry in Zimbabwe contributes less than 3% to Gross Domestic Product (GDP).[36] All the other non-monetary benefits go unnoticed (Nhira *et al.* 1998). The major source for deforestation in Africa is the clearing of land for agricultural purposes (Bradley & Campbell 1998).

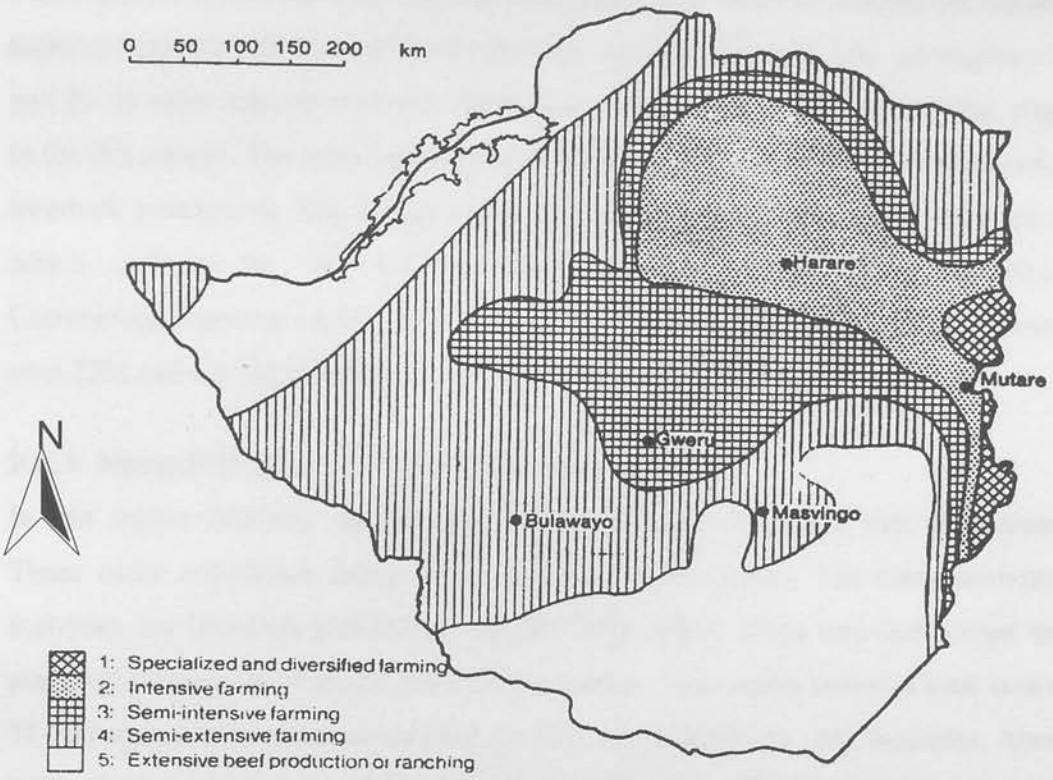
The history of forestry conservation in Zimbabwe is a reflection of dualism in that the policy in communal areas was formulated to restrict use of forest resources for subsistence use and banned the commercial exploitation of the forestry resources (Nhira *et al.* 1998). The gazetted or the protected forests still suffered from the human encroachment problem in some reserves (Nhira *et al.*, 1998). The state has realised that it is not capable of sustainably managing the natural resources including forests. The section below gives an overview of the different agro-ecological settings in Zimbabwe as this is closely linked to the different levels of economic activities hence forestry cover.

2.9. The Agro-ecological Regions in Zimbabwe

The availability of various local climates in Zimbabwe has to be understood within the context of its agro-ecological regions. Zimbabwe can be divided into five agro-ecological regions or natural regions as shown on figure 3 below. Divisions are based on the rainfall and topography.

[36] Most national accounting procedures tend to undervalue the contribution of forestry. This is normally relegated to commercial timber logging thereby undervaluing the contribution of the Non-Timber Forestry Products (NTFPs) which contributes significantly to the livelihoods of rural communities (Campbell 1996; Nhira *et al.* 1998; Hobley 1996; Wollenberg 1998).

Figure 3: Agro-Ecological Regions in Zimbabwe



Source: Michie & Nhandara 1999.

2.9.1. Natural Region 1: Specialised and Diversified Farming

This is a Specialised and Diversified Farming area, which receives more than 1000 mm of rainfall per annum. It lies between 900 and 1 700metres above sea level. This region is well suited for plantation farming. This is where most of the pines are grown. Some of the areas are hilly and sloppy making them unsuitable for general agricultural activities (Phillips 1962; Michie & Nhandara 1999). Fruit and intensive livestock production are some of the economic activities in these areas. In frost-free areas, tea, coffee, macadamia nuts and other plantation crops are grown (CSO 2000). This area covers 7 000 square kilometres that amount to about 2 % of the total land area in Zimbabwe. This area is largely owned by large commercial ventures (74%) with 24% being communally owned and the 2% owned by Small Scale Commercial Farming sector (SSCF) (CSO May 2000).

2.9.2. Natural Region 2: Intensive Farming

This region receives between 750 and 1000 millimetres (mm) of rainfall per annum. Some geographers further subdivide this agro-ecological region into sub-regions 2a and 2b. In some seasons relatively short rainy seasons or dry spells may affect crops in the dry season. The main agricultural activity is the crop cultivation and intensive livestock production. This region covers a total area of 58, 600 square kilometres, which accounts for 15% of Zimbabwe's total land area. The Large Scale Commercial Farming sector owns 74% of land in this region, Communal farmers own 22% and the remainder of 4% is owned by SSCF sector.

2.9.3. Natural Region 3: Semi-Intensive Farming

In this region annually rainfall range from 650-800 millimetres mm per annum. These areas experience fairly severe mid-season dry spells. The main economic activities are livestock production together with fodder crops and cash crops and marginal production of maize, tobacco and cotton. This region covers a total area of 72 900 square kilometres, accounting for 19% of Zimbabwe's total land area. About 49% of this area is Large Scale Commercial Farming (LSCF), 43% is communal land with the SSCF sector accounting for the remaining 8%.

2.9.4. Region 4: Semi Extensive Farming

Rainfall received in this region ranges between 450 and 650 mm per annum. Periodic droughts are experienced. Drought resistant crops and livestock production are the main economic activities in this area. This region accounts for 147 800 square kilometres, which is 38% of Zimbabwe's total land area. Communal areas account for 62% of land in this region, 34% is large-scale Commercial Farming areas and SSCF sector accounts for the remaining 4%.

2.9.5. Region 5: Extensive Farming

This region experiences very low and erratic rainfall for the production of drought resistant crops. The main economic activity is game ranching. This ecological region accounts for Zimbabwe's 104 400 square kilometres (27% of Zimbabwe's total land area). About 45% of land in this region is communal land, 35% is LSCF and 20% is owned by the National Parks (CSO 2000).

Having looked at a brief overview of the history of forestry management in Zimbabwe and the ecological background, the next chapter is going to look at the conceptual framework of co-management as a form of environmental decentralisation in the Mafungautsi area in Zimbabwe.

Chapter Three

Co-management within the Decentralisation Framework

3.0. Introduction

This chapter looks at co-management and its definition within the framework of decentralisation. It introduces the issue of actors, powers and accountability within a decentralised co-management arrangement. It will further analyse the different accountability mechanisms. It will then conclude by looking at the decentralisation attempts in Zimbabwe.

3.1. Co-management

After many decades of state management of natural resources, the state of the environment has, in many instances, worsened and at worst there are species extinction and irreversible damage. Assessments have shown that the state management is now limited. An alternative is to bring back the community as a key ingredient of resource management policy. This entails the inclusion of resource users as the main stakeholders in the management of forestry resources. Recognition of the synergistic role of the community and the state has given rise to "Co-management" as a resource management strategy (Posey & Kabuye 1995; Hobley 1996; Borrini-Feyerabend 2000). These partnerships should also incorporate all the different stakeholders who include the private sector which seem to have been previously sidelined (United Nations 2002b; World Bank 2002).

Co-management involves the creation of environmental or resource regimes featuring partnerships between local communities or resource users and agencies of (sub) national governments. These state agencies normally possess the legal mandate for environmental protection, for example department of national parks or natural resources boards (Guillet 2002; Young 2002: 284 *cf.* Jentoft 1989; Pinkerton 1989; Berkes 2002). This management strategy connects local level management with government level management institutions in areas such as fisheries, wildlife, protected areas, forests and other resources (Poffenberger & McGean 1996; Berkes 2002).

Co-management or joint forestry management is a result of the increased pressures on the limited forestry resources. It is also a form of decentralisation within the forestry sector.[37] The fuel crisis of the 1970s saw an increase in deforestation and resulted in the setting up of forestry as a vehicle for local community development.[38] This was brought to the world's attention through Eckholm (1975) and the 1981 Nairobi United Nations Environment Programme (UNEP) (Bradley & Campbell 1998 *cf.* Goodman 1985, O'keefe & Raskin 1985; Bradley 1988). In Zimbabwe this was to provide a basis for the World Bank funded Rural Afforestation Programme.

This 'crisis' like many others in the environment area, tended to be self perpetuating discourses which had the negative effect of excluding alternative histories and views on the basis of 'scientific evidence' (Leach & Fairhead 2000: 37). It also produced standard solutions such as fuel stoves and massive tree planting, which were envisaged to help reduce the woodfuel gap or deficit (Munslow *et al.* 1988, Bradley & Campbell 1998; Mahiri and Howorth 2001; Kituyi 2002).

The co-management could also be linked to the bottom up planning advocacy of the 1980s, which resulted in the formation of social forestry through establishment of woodlots (Hobley 1996; Chambers 1983). The 1990s saw a review of the Forest Sector Policy – which has since been revised (World Bank 2002), The Rio de Janeiro Agenda 21, The Johannesburg Earth Summit in 2002 and Public Sector reform and decentralisation within the environmental sector (Ribot 2001). This resulted in the institutional and policy reform resulting in the forging of new partnerships through collaborative, joint, participatory and co-management arrangements.[39]

Co-management describes the partnership between the state and the local communities in the management of natural resources. Such natural resources include

[37] Ellis & Biggs (2001) diagrammatically illustrate that decentralisation is one of the mainstream rural development narratives of the 2000s. For other narratives stretching back to the 1950s see Fine & Stoneman (1996) and Ellis & Biggs (2001).

[38] Hobley (1996) also includes the impact of the Sahelian drought and its implication on deforestation.

[39] For a discussion on the paradigm shifts in forestry management see Hobley 1996.

forestry (Hobley 1996; Singleton 1998; Pomeroy & Berkes 1997).[40] In India co-management has also been referred to as joint forest management (Schug 2000). In Nepal co-management revolves around Forest User Groups (Nightangle 2003). Matose (2002) notes that in Ghana it is called collaborative forest management.

Co-management can also be defined as a situation in which two or more social actors negotiate, define and guarantee amongst themselves a fair sharing of the management functions, entitlements and responsibilities for a given territory, area or a set of natural resources (Borrini-Feyerabend *et al.* 2000). Ideally, the state should share responsibilities in decision making in a co-management arrangement - not a milder version of state management (Guillet 2002).

Co-management has also been described in participatory, collaborative, joint, mixed, multi-party or round table management terms. Co-management arrangements are deemed desirable for their equity, social justice and democracy in natural resources management. This management regime guarantees local people; paying the price of conservation, a voice in decision making. Borrini-Feyerabend 2000 goes further to characterise co-management as shown in Table 3.

In the Zimbabwean context the term resource sharing or shared forest management have also been used. The main assumption is that the state management of the gazetted forests has resulted in the tragedy of the state property. This has come as a realisation that "fortress conservation" has failed to result in sustainable management of forestry resources (Hulme & Murphree 1999, 2001; Brockington 2002).[41]

[40] In India Sundar (2000) argues that joint forest management is an old concept going back into the forestry practice which has been recently revived by the donor community.

[41] See also Van Den Breemer, Drijver & Venema (1995) on what they term local resource management in Africa, an umbrella term for different attempts to decentralise natural resource management to the local level.

Table 3: ***Co-management Characteristics***

• a pluralist approach to managing natural resources (NRs), incorporating a variety of partners in a variety of roles, generally to the end goals of environmental conservation, sustainable use of NRs and the equitable sharing of resource - related benefits and responsibilities.
• a political and cultural process *par excellence*: seeking "democracy" and social justice in natural resource management.
• a process that needs some basic conditions to develop, among which are: full access to information on relevant issues and options, freedom and capacity to organise, freedom to express needs and concerns, a non-discriminative social environment, the will of partners to negotiate, confidence in the respect of agreements, etc.
• a complex, lengthy and sometimes confused process, involving frequent changes, surprises, sometimes contradictory information, the need to retrace one's own steps.
• the expression of a mature society, which understands that there is no "unique and objective" solution to manage natural resources but, rather, a multiplicity of different options compatible with both indigenous knowledge and scientific evidence, and capable of meeting the needs of conservation and development (and that there also exists a multitude of negative or disastrous options for the environment and development).

(Source: Borrini-Feyerbend *et al.* 2000: 7)

The nature of natural resource management in Zimbabwe has always been reactive rather than being proactive. The emphasis was on the legal framework, which outlines punishments for violations of natural resource offences. These legal punishments through acts such as the Natural Resources Act 1996, Forest Act 1996, Communal Lands Forest Produce Act 1987 and the Parks and Wildlife Act 1975, it was reasoned, would curb the degradation of natural resources such as forests. Such a criminalisation approach is not unique to Zimbabwe. Criminalisation in Zimbabwe entailed coming up with stiffer penalties for those trying to earn a living through selling of forest products such as wooden carvings, fruits or using poles from

gazetted areas. Those arrested would have to pay fines, the failure of which would result in custodial sentences. Elsewhere, stiffer sentences such as the death penalty under the Forestry Code of 1972 in Senegal and the "Shoot on sight Policy" of Nepal (December 1999) have alienated people from deriving livelihoods from forestry resources. Co-management now calls for the meaningful participation of the local communities in order to achieve sustainable forest management. Co-management is a form of environmental decentralisation. Environment in this context is viewed in a broader sense encompassing social, economic and ecological attributes (FAO 2003). It is upheld as a form of social justice as it allocates benefits to the people who bear the externalities. These are also the people whose livelihoods are seriously affected by forestry related decisions.

> The pursuit of sustainable development requires a political system that secures effective participation in decision-making.... This is best secured by decentralising the management of resources upon which local communities depend, and giving these communities an effective say over the use of these resources. It will also require promoting citizens' initiatives, empowering people's organisations, and strengthening local democracy (WCED 1987 cited in Hobley 1996:10).

Wekwete (1990), Conyers (1999) and Mawhood (1983) define decentralisation as the transfer of power and decision making to sub-national entities. Decentralisation is defined as "a process of change in which functions previously undertaken by government institutions at national level become the responsibility of government or non-government institutions at sub-national level"[42] (Conyers 1999: 6). In developing countries decentralisation has been advocated as a strategy for development as it involves local communities in decision making and management (Conyers 1999). Conyers further notes that:

> Most decentralisation efforts have both explicit and implicit objectives. Those objectives likely to appeal to the general public, such as local empowerment and administrative efficiency, are generally explicitly stated, while less popular ones, such as increasing central control and 'passing the buck,' are unlikely to be voiced (Conyers 2000: 9).

Decentralisation of governance to units that are closer to the citizens, is gaining increasing significance for governments in developing countries (Mawhood 1983;

[42] A distinction is often made for different forms of decentralisation, which include "devolution", "de-concentration" and "delegation" see Crook & Manor (1998), Mawhood (1983).

Crook & Manor 1998; Ribot 1999). The term decentralisation entails a process by which bundles of entrustments – including regulatory and executive powers, responsibility and authority in decision making, institutional infrastructure and assets, and administrative capacity are variously transferred to local groupings such as local governments or local communities. Entrustments can be defined as the responsibilities given to lower level structures from above.

In practice decentralisations turn out to be patchy and complex processes, having to operate within arenas characterised by the contestation and negotiation of interest between and within various levels of society (*cf.* Moore 1993; Peet & Watts 1996; Tsing 1999).

Environmental decentralisation seems to be gaining momentum since the 1970s and early 1980s[43] (Rondinelli 1983). It was perceived as a way of accelerating economic growth and meeting the needs of the poor. Economic and political pressures and demand for democratic governance have continued to drive the decentralisation process (Smoke 2000). Advocates of environmental decentralisation justify it on the grounds of increased efficiency, more thoroughgoing equity, and greater participation and responsiveness of government to citizens (Agrawal & Ribot 2000: 1). An underlying assumption of decentralisation is that it would promote democracy, which would result in popular participation and accountability of local government. Decentralisation would also entail that the elected representatives would become more responsive to the desires of their citizens resulting in more effective service delivery.[44]

Decentralisation is therefore a key tenet of democracy as it calls for the participation of all people. It seeks to make people citizens rather than subjects, with citizens having rights whereas subjects have limited or no rights (Mamdani 1996).

> We suggest that three distinct dimensions underlie all acts of decentralisation: actors, powers, and accountability. Without an

[43] Forestry and wildlife policy documents of the 1950s and 1960s were already talking of the need to share benefits with Tribal Trust lands in the then Rhodesia in order to have sustainable and affordable natural resource management see Phillips *et al.* 1962.

[44] This is the more liberal view of democracy. The Marxist view, in general, argues that by just giving people equality of rights to vote is not good enough as it will not change the overall political economy. They point out that equality should be in terms of equality in terms of access to the means of production, which entails nationalisation (*cf.* Kessal 2002).

> understanding of the powers of various actors, the domains in which they exercise their powers, and to whom and how they are accountable, it is impossible to learn the extent to which meaningful decentralisation has taken place (Agrawal & Ribot 1999: 476).

Actors are the players within the decentralisation process. These are at various levels and they wield different powers (Wollenberg 1998; Borrini-Feyerabend *et al.* 2000; Ribot 2000, 2001). Decentralisation aims at altering the power relationships between the different power holders. Actors might be hereditary, such as chiefs, appointed, elected, powerful individuals, and NGOs or corporate institutions. How these people relate to the people on whose behalf they are acting brings in the issue of accountability (Agrawal & Ribot 1999; Ribot 2000; 2001).

Since not everyone can physically participate, democratic principles therefore call for the selection of representatives of the local level community in order to represent the interests of the local people. Representation is therefore one of the key issues for political or democratic decentralisation. These representatives must have powers devolved to them so that they can make meaningful decisions. In Africa there has been various attempts to devolve natural resource management in different countries with varying degrees of success (Hulme & Murphree 1999, 2001). This has been done as a way of reversing the centralised colonial governance (Wunsch & Olowu 1990; Crowder 1968 in Wunsch & Olowu 1990). The next section will look at power within the decentralisation framework before looking at the different types of powers.

3.2. Powers within the Decentralisation Framework

Decentralisation entails the devolution of powers to the local level (Ribot 1999, 2001). These powers can broadly be viewed as being executive, legislative and judiciary powers. Ribot (2001) further illustrate this point by citing two quotations below:

> Without increased local autonomy, increased local representation has little meaning (Ole Therkildsen 1993: 88).

> …The most contentious design issue in political decentralisation has always been the problem of power sharing between the centre and the localities (Oyugi 2000: 9).

This study will look at all the three components of Agrawal & Ribot (1999) framework of Actors, Powers and Accountability and how these result in particular environmental outcomes within the Mafungautsi Forest. These outcomes may be social, economic, environmental and ecological. The time frame of this research will however not be able to effectively monitor ecological outcomes.

This study will use Agrawal & Ribot (1999) framework for analysing the various forms of powers which have been decentralised. The powers to be decentralised will be looked in terms of four categories, which are:

- Powers to create rules
- The Power to make decisions about resource use
- The power to implement and ensure compliance to the new or altered rules and
- The Power to adjudicate disputes that may arise

Decentralisation of both local governance and natural resources has often resulted in decentralisation of limited powers (Ribot 1999; Agrawal and Ribot 1999; Conyers 1990, 2000). It is important to note that democratic decentralisation has often been seen as a magic solution to all ills in developing countries (Johnson 2001) since it results in institutions that are more responsive to the local needs (*cf.* Crook & Manor 1998; Manor 1999; Blair 2000). The World Bank Report 2000/1 cited in Johnson 2001, however, pointed out that "there was no consistent connection between pro-poorness and democracy" (Moore & Putzel 1999: 8). The above section gave a brief outline of powers within the decentralisation framework. The next section looks at the four types of powers in detail.

3.2.1. Powers to create rules

These are the powers that are devolved to the local level in order to be able to make rules at local level. One advantage of decentralisation has been hailed as the possibility of designing rules and regulations that are relevant to the local circumstances (GOZ 1998, Ostrom 1990). This then means that decentralised structures should be given powers to make rules and regulations that suit the local needs and demands. The rules and regulations to be made at local level should therefore not be *ultra vires* the enabling act at higher level. This is also the case in

natural resource management where the local resource users are better placed to make the resource exploitation rules and regulations which suits their specific context (Hulme & Murphree 1999, 2001; Ribot 2000). The argument has been that locally made rules are not only relevant, but are also most likely to be enforced locally. This then becomes the crunch of decentralisation of powers (Agrawal & Ribot 1999; Chitsike 2000). For instance if people set up their own local natural resource management rules, it would be much easier for them to abide by the rules which they made rather than rules imposed from central government.

3.2.2. Power to make decisions about resource use

Decentralisation has to devolve power to make decisions about exploitation of natural resources at local level. The subsidiarity principle (Chitsike 2001) has to be applied where local communities, through their representative institutions, have to choose their own representatives and make decisions on issues which are of a local level. If other decisions have to be made at a higher level there is no problem making sure that these are moved to institutions at higher levels (Murphree 2000, Ribot 2001). People at a local level should take responsibility for the decisions pertaining to the use or exploitation of their resources. This then will promote equity and efficiency according to the needs of the community.[45] The community through their elected institutions or representatives should make decisions on the use and exploitation of natural resources. This involves the community deciding how the resources are to be used. Such powers could be in the form of power to decide what community projects to invest proceeds from permit fees in.

3.2.3. Power to implement and ensure compliance to the new or altered rules

This is the power to make sure that the decisions, which the community makes, are implemented. Through their representative institutions the decisions made should be implemented for sustainable natural resources. Here institutions play an important role. The strength of the institutions lies in the legitimacy through its ability to ensure compliance with the rules which may be amended from time to time

[45] The term community is contradictory and confusing. Ribot 2001 points out that there are multiple interests within communities, some of which are contrary. One needs to bear in mind that community

depending on the local demands or needs. The argument has been that people are more likely to comply with their own rules rather than externally imposed rules.

3.2.4. The Power to adjudicate disputes that may arise

In cases where the rules have been violated there is need for powers to be devolved which will enable the new institutions to be able to pass judgement on the violators of the community rules and regulations. This judiciary role is important because if its not granted at the local level it will erode and undermine the authority of the local or the decentralised institutions thereby undermining the management of natural resources at local level. Once violators realise that the local institutions have no power to adjudicate over violators this will mean that they will continue to violate the rules and regulations which may then result in negative environmental outcomes (Ribot 2000). This seriously undermines their capacity to enforce rules. Actors at a higher level should also be willing to reinforce decisions of the adjudication process. Attempts to quash adjudication at local level will undermine the local judiciary system.[46]

In the context of the Mafungautsi research area of Gokwe the four types of powers which are namely, rule creation, decision making, resource use and implementation and ensuring compliance will be important for this study. Co-management, as a form of decentralisation, will be analysed by looking at the actors involved and, based on fieldwork, how much powers they wield. Once powers have been devolved, it is even important to assess to whom are the power holders accountable to. The next section therefore looks at accountability of devolved powers.

3.3. Accountability

The mere fact that representative institutions have been selected, and powers have been devolved in itself does not guarantee that there is going to be positive social, economic, environmental and ecological outcomes. Positive outcomes are more likely to be achieved as a result of a downwardly accountable representation. The representatives have to be accountable to their electorate, which should then make them accountable to the people. This can be well described by The Lord Nolan

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needs are not uniform and one has to take account of the differences due to age, caste, wealth, education, status, gender etc (Chambers 1983).

Standards in Public Life which defined accountability of office bearers as that "they should submit themselves to the appropriate scrutiny" of their actions or inaction and the resultant consequences (The Economist 23 February 2002: 40; *cf.* Agrawal & Ribot 1999; Borrini-Feyerabend *et al.* 2000). Accountability 'forces' the office bearers to meet the needs and demands of the electorate or they run the risk of being voted out of office. Lonsdale cited in Agrawal & Ribot (1999) notes that "Rulers claim to be responsible to their people; people try to hold them to account. Accountability is thus the measure of responsibility" (Agrawal & Ribot 1999: 478). Agrawal & Ribot (1999) further point out that all modes of accountability are "relational". To understand its nature therefore, it is necessary to attend to the actors among whom relations of accountability exist.

Accountability will be the major emphasis of the analysis of the co-management study in Mafungautsi. Accounting for the participation of local communities in environmental decision-making, it is reasoned, will promote local interest in sustainable use and mitigate practices considered harmful to the environment. Accountability is achieved through the exercise of counter power to balance arbitrary action (Agrawal & Ribot 1999: 478). Accountability then becomes a key tenet of natural resource management. Some researchers have argued that because most natural resource institutions have been more upwardly accountable to central government than to the local people, this has resulted in negative environmental outcomes in forestry, grazing, fisheries, wildlife resource or any other resource. This has meant that the people do not associate themselves with the actions or decisions, which are purportedly taken on their behalf. So it is important that this relationship is understood to make sure that what in many cases has often been referred to as decentralisation tends to be upwardly accountable hence the negative environmental outcomes. This is what has been called decentralisation in order to "centralise" (*cf.* Wekwete 1990).

There are various mechanisms, through which the local people can hold the office bearers to account. These include elections,[47] embeddedness, witchcraft, auditing,

[46] See The Herald 24 February 2003.

[47] Elections alone are a crude measure of accountability as they occur once in a number of years (after some time) and they address broader issues (Blair 2000).

report-backs, meetings, social capital (*cf.* Lin 2001; Schuller, Field and Baron 2000), legal recourse, polycentrity, balance of powers, third party monitoring, lobbying, free media, transparency, information provision, public discussions, public reporting, participating processes, social movements, civic education, discretionary powers for governments, proximity, ideologies, civic dedication, reputation, trust, administrative dependence on local government, taxation, central government oversight, professing ignorance of the project (*cf.* Agrawal & Ribot 1999; Ribot 1999, 2000, 2001). The section below looks at some of the accountability mechanisms.

3.3.1. Accountability Mechanisms

A basic step in accountability mechanism is the election of representative of the local community. Representation has been an important element of western style of democracy, which has seen representatives being elected to go and speak on behalf of the local people. The chosen representatives are then expected to advance the interests of their electorate. The thesis is that representatives have to keep on advancing the interests of the people who chose them otherwise they would not be able to secure another term of office. Ribot (2000) notes that elections are an important mechanism of accountability but on their own, elections do not always hold leaders accountable to their electorate (Ribot 2000, 2001; *cf.* Mawhood 1983). How the elections are conducted could be manipulated in such a way that whether people support or oppose a particular candidate will not affect the outcome of the elections.[48] In Zimbabwe some members of parliament (MPs) are known for visiting their constituencies during election time only. One needs to bear in mind that at times, even unelected people such as chiefs could be more accountable and responsible to their people than elected councillors or other representatives as will be shown in one instance in the Mafungautsi case study.[49]

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[48] Recent Presidential elections in Zimbabwe have been described as having been won by the opposition which, however alleges to have *lost the count*. In most normal instances elections are expected to result in the people's choice being identified. Ribot 1999 notes that in Mali people are asked to vote for candidates along party lines in an environment which almost gives the government all the advantages and with the opposition candidates being portrayed as enemies of the state (*cf.* Kessal 2002 for the Tanzanian case).

[49] Hachileka (2000) using Zambia's South Luangwa Area Management Unit (SLAMU) demonstrates that there are cases where chiefs are not accountable to their people - instead they exploit their communities to further their personal interests in what he terms "chief-based" wildlife management programme instead of the "Community Based" wildlife management.

Embeddedness is the responsibility that local representatives feel for their community by the mere fact that they are part of the community. Questions like "what would my community say" may force the local representatives to pursue the interest of the community represented. This is why decentralisation is said to advance the interests of the local people unlike instances where the central state, which has no close ties or attachments to the community may make decisions, which are not in the best interests of the local community.

Auditing is a key mechanism for making sure that the resources are being used in the best interests of the local community. The community may carry out various forms of auditing to make sure that their interests are being advanced. This can be done jointly with report backs, which are meant to give feedback to the local community on how their resources are being managed. Report backs may also be in the form of meetings.

Social capital is a key aspect which affects the decisions made by selected representatives. If local people are representing their community by merely misrepresenting their people they may loose social capital through the loss of friends, loss of help in times of need or even the 'loss of one's face' or embarrassment.

The prejudiced community can threaten to sue or resort to the courts in order to correct an injustice. This can be done through traditional or modern day courts. Once this threat is available office bearers might not want to be dragged to court over misrepresentation of community interests. The community might not use this recourse to justice but the mere fact that it is a possibility might force the office bearers to be more downwardly accountable to their electorate.

Third party monitoring also serves as a downward accountability mechanism. The government might have an oversight by looking at what the devolved units are doing with the decentralised power to make sure that they are still pursuing policies, which are in the best interest of the community. This is normally done by watchdog institutions, and at times NGOs. Lobbying by either the local people or watch dog

institutions might force the local actors to act in the interest of the local people thereby becoming downwardly accountable. Accountability is relational hence an ideal situation is where the actors are more downwardly accountable to the people who elected them than they are upwardly to the central state.

Free media will help actors to be accountable, as the mere prospect of being publicly shamed will force the actors to be accountable to their electorate. However, this also assumes that the actors are themselves not in control of the means of disseminating the information in which case the information disseminated could be censored. Free media on its own is not enough. Kelsall (2002) points out that presence of free media has not made politicians accountable to their constituencies in Tanzania.

Public discussions and meetings also help to make office bearers more accountable to their electorate. This can be further enhanced through civic education, which demand that leaders are transparent in the way they conduct their business. Transparency also demand that they should be honest through declaring conflict of interest in order to be trusted by the local communities. A number of leaders use the public office in order to advance their personal interests.

Witchcraft is another mechanism which has been used by the weak[50] to make sure that the elected people are accountable to the people who elected them or whom their interests they are supposed to advance. The mere threat or fear of community people using esoteric powers might force the office bearers to be accountable to their community. However, as will be shown later, this may, in some instances, be used against accountability if those perceived to be wielding esoteric powers are elected into office and community members are frightened of questioning their integrity or their abuse of community resources. Communities have various weapons of the weak that they may use to make sure that office bearers are held

[50] Klooster (2000) modifies Scott (1985)'s concept of the 'weapons of the weak' to 'weapons of the not-so-weak' to reflect their response. Nygren (2001) illustrates that local communities often end up using their weapons against global challenges on their livelihood strategies as demonstrated in his Costa Rican case study. In Cameroon villagers blocked roads in 1993 to stop the exploitation of 'their' forests by concessionaires. The government responded by sending troops (Ekoko 2000: 153). Pathan *et al* (1990) notes that in Gujurat 383 officers were injured and four died in 376 cases of dispute between 1985 and 1989 (cited in Sundar 2000:256). In Zimbabwe a concessionaire was chased by communal residents when he started logging sacred sites in Gokwe (Interview with Mockdale Pvt. Limited 21 June 2000).

accountable for their actions or inaction (Scott 1985) and these might include professing ignorance of certain issues or withholding taxes.

The above section has looked at some accountability mechanisms. The above mechanisms will be important in the Mafungautsi context. Co-management, implemented mainly through Resource Management Committees, will be analysed to assess what mechanisms are being used by the local community to "force" their representatives to be accountable to the Mafungautsi community. The next section will look at decentralisation efforts in Zimbabwe.

3.4. An Overview of Decentralisation in Zimbabwe

Decentralisation has been high on the Zimbabwe Government's list of policy priorities since the country became independent from Britain in 1980 (Gasper 1997; Makumbe 1998; Nkomo 1999; Conyers 2001). Conyers (2001) points out that the decentralisation history of Zimbabwe can be divided into three phases: Phase 1: Deconcentration: 1980 to 1992; Phase 2 Attempts at Devolution: 1993 to 1999 and Phase 3, Passing the Buck: 2000 to present.

Decentralisation has meant different things to different people throughout the world (Conyers 1983, Mahwood 1983). Decentralisation is the transfer of responsibility for planning management of natural resources to the lower tier of natural resource management. Decentralisation can be categorised into de-concentration, delegation, devolution and privatisation (Chitsike 2000). Political decentralisation, which is also called democratic decentralisation, occurs when powers and resources are transferred to authorities representative of and downwardly accountable to local populations (Manor 1999; *cf.* Crook & Manor 1998; Agrawal & Ribot 1999). Democratic decentralisation increases public participation in decision making.

> Through greater participation democratic decentralisation is believed to help internalise social, economic, developmental and environmental externalities, to better match social services and public decisions to local needs and aspirations; and to increase equity in the use of public resources (Ribot 2001: 11 *cf.* World Bank 2000; Manor 1999; Hilhorst & Aarnicnk 1999; Crook & Manor 1999; Cernea 1989; Cheema & Rondinelli 1983).

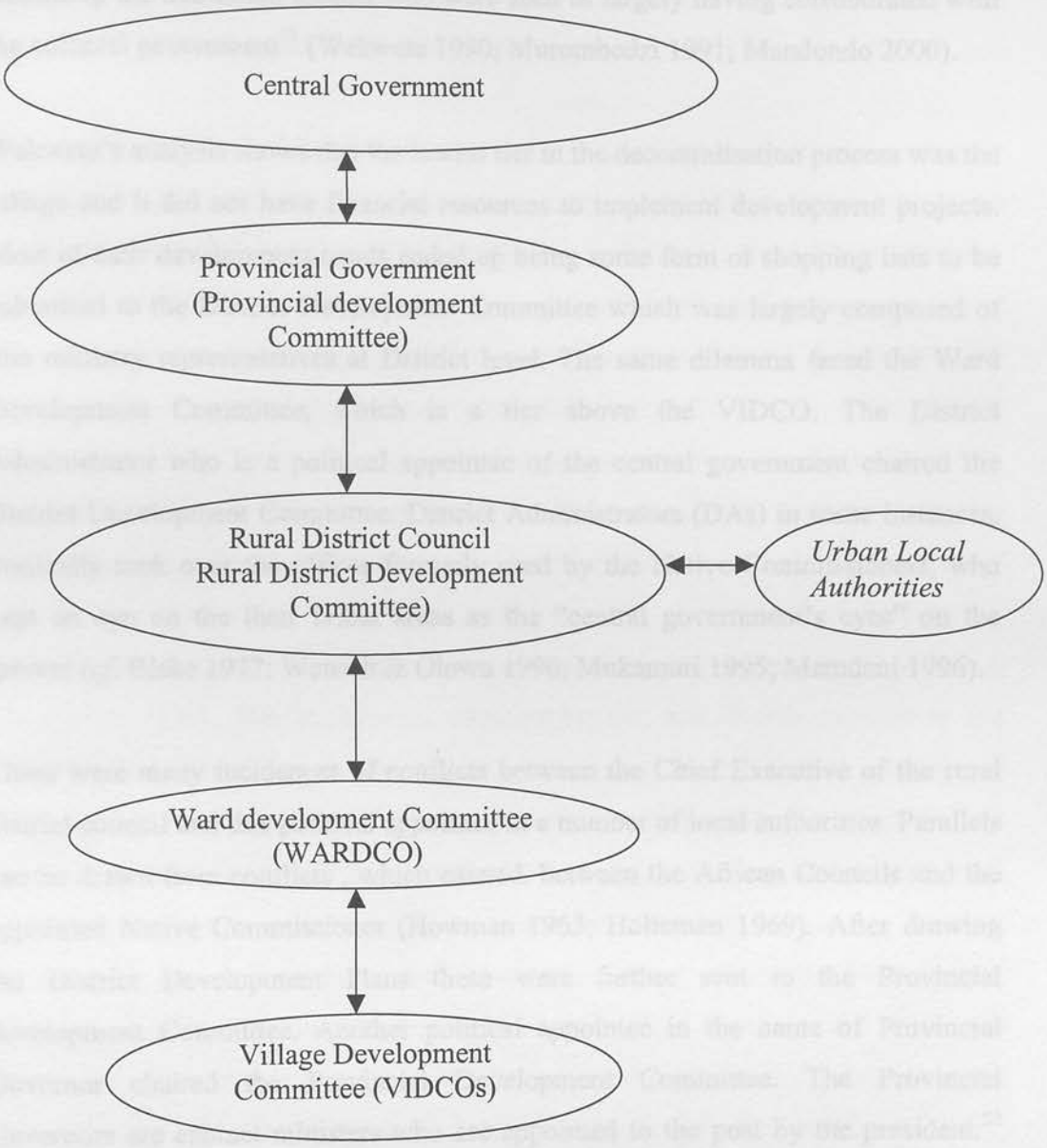
Democratic decentralisation or political decentralisations are very strong forms of decentralisation from which theory indicates the greatest benefits can be derived (Ribot 2001). Co-management in Mafungautsi, as a form of decentralisation, will be viewed from the point of view of political or democratic decentralisation.

Other forms of decentralisation, which will not be the main focus of this study, are deconcentration or administrative decentralisation and privatisation. Deconcentration or administrative decentralisation may be defined as the transfer of central state, such as prefects, administrators, or local technical ministry agents (Ribot 2001:11). These are locally appointed bodies or individuals who are upwardly accountable to the people who appointed them (Oyugi 2000; Manor 1999; Agrawal & Ribot 1999). In this instance there is a weak form of decentralisation with a weak downward accountability as most local representatives are more accountable to the centre which appoints them than they are to the local communities or people (Ribot 2001). This form of decentralisation might display some forms of democratic or political decentralisation (Blair 2000). Privatisation on the other hand often takes place in the name of decentralisation (Ribot 2001). Some academics dismiss it as a form of decentralisation because it operates on a different form of logic (Ribot 2001; Oyugi 2000; Balogun 2000; Agrawal & Ribot 1999).

> Privatisation takes place when public resources are transferred to private groups, such as individuals, corporations, forest service or donor-organised management committees, NGOs (Ribot 2001: 11 *cf.* Oyugi 2000; Manor 1999; Agrawal & Ribot 1999).

In Zimbabwe decentralisation was seen as a development strategy for the newly independent state. In 1984 therefore the government pronounced the Prime Minister's 1984 Decentralisation Directive. Decentralisation was seen as expediting development in the rural and urban areas. In Zimbabwe the Prime Minister's Directive led to the decentralisation of power from the central government to the local authorities. Under this decentralised structures new levels of local authorities were established going down to village level as shown in the diagram below:

Figure 4: The Local Government Structure after the Prime Minister's directive of 1984



The aim of the above structure was to decentralise power to the grassroots levels at the village. This was also seen as a development vehicle, which would see local people initiating development projects at grassroots level. Some researchers have however questioned the wisdom of this approach as it was seen as a mechanism of sidelining the traditional leaders who were seen as largely having corroborated with the colonial government[51] (Wekwete 1990; Murombedzi 1991; Mandondo 2000).

Wekwete's analysis shows that the lowest tier in the decentralisation process was the village and it did not have financial resources to implement development projects. Most of their development needs ended up being some form of shopping lists to be submitted to the District Development Committee which was largely composed of line ministry representatives at District level. The same dilemma faced the Ward Development Committee, which is a tier above the VIDCO. The District Administrator who is a political appointee of the central government chaired the District Development Committee. District Administrators (DAs) in some instances, ironically took over the offices formerly used by the Native Commissioners, who kept an eye on the then Tribal areas as the "central government's eyes" on the ground (*cf.* Blake 1977; Wunsch & Olowu 1990; Mukamuri 1995; Mamdani 1996).

There were many incidences of conflicts between the Chief Executive of the rural district council and this political appointee in a number of local authorities. Parallels can be drawn from conflicts , which existed, between the African Councils and the appointed Native Commissioner (Howman 1963; Holleman 1969). After drawing the District Development Plans these were further sent to the Provincial development Committee. Another political appointee in the name of Provincial Governor chaired the Provincial Development Committee. The Provincial Governors are cabinet ministers who are appointed to the post by the president.[52] They are also part of the members of parliament who were appointed by the then

[51] This was not always the case as some traditional leaders such as Rekayi Tangwena demonstrated the land conflicts with the colonial government over their eviction from the Gaerezi area, in the Eastern Highlands of Zimbabwe. Being appointed a senator in the post-independence government in 1980 was largely viewed as a reward for his efforts (Moore 1998).

[52] After the Urban Councils elections in 2000 which saw the election of opposition party councillors and mayors in Harare, Bulawayo and Masvingo, the government subsequently invoked a Statutory Instrument which paved way for the appointment of governors for Harare and Bulawayo to whom the opposition councils must report through (See Mudiwa in The Daily News 11 December 2002).

Prime Minister.[53] The Provincial Committee sifted through the plans submitted by the District Development Committees in their province and then submitted a Provincial plan to the central government which ultimately approved the plans. The central treasury had the powers to allocate resources for the implementation of the development plans. This meant that at all levels submissions were mere bids, which were finally determined by the central government.

The Prime Minister's Directive, it was hoped, would bring about the grassroots participation and some kind of a bottom up approach. At Village level most of the members were also members of the Zimbabwe African National Union Patriotic Front (ZANU PF). There were posts designated for the youth and women. Arguably, this form of decentralisation was a strategy for consolidating the ZANU PF government's control of the rural people (Wekwete 1990; Conyers 1999, 2001). Some researchers even question whether decentralisation in Zimbabwe was designed to increase participatory planning. Makumbe (1998) further labels this "Decentralisation for social control" rather than the government's stated objectives.

Decentralisation in Zimbabwe was designed to develop a one party state by default (Makumbe 1998). The institutional constipation that has further resulted in the creation of a Man, Women and Youth Leagues has further caused institutional chaos. In Gokwe for instance, there has been the creation of the Men, Women and Youth leagues at Party District Level - a level almost equivalent to the RDC ward level. The Leagues comprise of the chairman, secretary, treasurer, Political Commissar, security, publicity and transport, welfare secretary, development, education, health, legal information and two committee members. All the above posts, except for the committee members have a deputy. These are duplicated for the women and youth. Resulting in 72 people holding posts, over and above other institutional posts.

The initial phase of decentralisation as a result of the Prime Minister's Directive succeeded in consolidating the government's power rather that decentralise power to the local people. It was due to the perceived failure of the Directive that the

[53] From 1980 to 1987 Zimbabwe had a Prime Minister and a ceremonial President. The introduction of an executive Presidency in 1987 saw the abandonment of the Prime Minister's office.

government has revisited the concept of decentralisation in the 1990s. In 1998 the government produced an Outline of the Decentralisation Implementation Strategy under its Capacity Building Programme. In 1993 the President of Zimbabwe told the Association of Rural District Councils that they would be assuming an increasing role in the provision of services. This has however to be viewed in the context of the declining national resources due to the Economic Structural Adjustment Programme (ESAP) that the government had embarked on. Responsibilities to be decentralised were to be in phases as the government had to gradually hand over responsibilities to the local authorities. The main thrust of the decentralisation programme is the decentralisation to the Rural District Council (RDCs). The new phase of decentralisation has been closely linked to the Rural District Councils Capacity Building Programme (RDCCBP). The cabinet has adopted thirteen principles to guide the Decentralisation process. Under the RDCCBP donors and multilateral organisations were to adopt and fund RDCs in Zimbabwe.

Objectives of the Decentralisation Process, according to the donor community, are perceived as the promotion of democracy, good governance, public participation and civic responsibility in the development process, increase efficiency and effectiveness in both central and local government and therefore enhance service delivery and reduce the role and cost of central government in the management and provision of local services. As envisaged in the outline document that it will increase public participation, create opportunities for local communities and institutions to influence decisions and thus lead to better governance (GOZ 1998).

> The state in Africa has largely been privatised or personalised by incumbent rulers to the extent that decentralisation, however defined, has meant very little empowerment of the people at the local levels - the grassroots. Even for late starters in the decolonisation race such as Zimbabwe, the wealth of lessons of experience of other countries does not seem to have resulted in the evolution of a local government system which effectively diffuses power and facilitates the people's participation in the planning and implementation of local development and governance activities (Makumbe 1998: 1).

Gokwe was a Pilot District Support Project (PDSP) funded by the then British Government's Overseas Development Administration (Makumbe 1998). This meant that decentralisation initiatives are expected to be more developed as compared to the rest of the 55 districts in Zimbabwe.

Decentralisation seems to have been ineffectively implemented or has produced disappointing results (Sazanami in Cheema & Rondinelli 1983). "Decentralisation" has been thought to be capable of performing miracles resulting in little or no attention being paid to the power dynamics and accountability configurations within decentralisation.

> Decentralisation has been seen as a means by which the state can be made more responsive, more adaptable, to regional and local needs than is the case with a concentration of administrative power and responsibility in the central state.... But decentralisation of government itself does not necessarily involve devolution of power. The extension of the state outwards and downwards can equally serve the objective of consolidating the power of a state at the centre as well as that of devolving power away from the central state; it can both extend the state's control over people as well as the people's control over the state and its activities. Decentralisation is a two-edged sword (Webster 1990 cited in Hobley 1996: 10).

Decentralisation of forestry resources through co-management, must be legitimate and must emerge from social consensus so that the people view decentralised powers as legitimate. Decentralisation in the form of co-management is about the interaction of power and actors in the context of decentralised forestry management. It's some form of appreciation that the government should not keep on extending its hand beyond its reach (Murphree 1991; Hulme & Murphree 1999, 2001).

Decentralisation is important due to the difficult of administering effectively from the centre when problems are poorly understood, resources are short, and management systems inappropriate (Morris 1976; 1981; Leonard 1986; Leonard & Oyugi 1985; Wunsch 1986); the effective self-defence of the rural masses from the market economy (Hyden 1980; 1983); the erosive effects of such policies have had on the entire economy (World Bank 1981); and the use in few cases of brutal tyrannies to hold power (Jackson & Rosberg 1982; Austin 1984; Decalo 1985:7).

This study will use the decentralisation conceptual framework to analyse the co-management initiative in the Mafungautsi Forest area of Gokwe in Zimbabwe. Most studies have looked at the co-management narrative without looking at the accountability arrangements. It will go beyond the assumption that participation on its own will result in positive environmental outcomes. This study will look at the

impact of the accountability mechanisms and how these will impact on the environmental outcomes.

Environmental and ecological outcomes are the results that can be attributed to the nature of the accountability mechanism arrangements. In social, science perspective, it might not be definitive to come up with causality but these outcomes, using different kinds of data will then be used to determine the most likely outcomes. Ecological outcomes may be difficult to monitor within a short time frame and also taking into account the fact that the FCZ itself does not have a management plan which would assist in terms of ecological monitoring over a long period of time.

Social outcomes are the social results of the decentralisation of forestry resources. What has been the impact of the decentralised forestry management on gender issues, stratification of society by age, wealthy etc., have these been worsened or improved due to the introduction of co-management? Who is benefiting and who is loosing and what are the implications of this in the power configuration or re-configuration within the research sites of Batanai and Chemwiro-Masawi?

This chapter started off by looking at the emergence of co-management. It then looked at co-management, its definition and ended up by looking at the attempts at decentralisation in Zimbabwe. The next chapter takes up the issue of the decision to have co-management in Zimbabwe and the crafting of the co-management institutions.

Chapter Four

Co-management in the Mafungautsi State Forest

4.0. Introduction

This chapter puts the previous chapter's general discussion of co-management in the context of Zimbabwe's Mafungautsi state forest. A historical background to this management strategy is detailed in the first part of the chapter. The key point that this chapter is demonstrating is that the establishment of the co-management arrangement was not only motivated by the FCZ's intention to devolve forestry management to the local communities but the main driving force was the influence of donors initially through the World Bank and then later CIDA. The chapter will also look at the crafting of the institutional infrastructure and how this introduced some dynamics in a setting of an already conflated institutional framework. The last section concludes by briefly commenting on co-management in relationship to the conceptual framework.

4.1. The setting up of the Co-management arrangement

The Co-management project fell under the framework of the Community Based Natural Resources Management (CBNRM) which is part of the Forest Resources Management and Development Project Forestry II. Forestry II was a follow-up to the Rural Afforestation Project (RAP) which was funded by CIDA between 1983 and 1989. The initial proposal covering areas such as co-management, rural afforestation and the improvement of commercial sawing mills owned by the Forestry Commission, was prepared by the Forestry Commission with subsequent funding from the Food and Agricultural Organisation (FAO)/World Bank Cooperative Programme (CP) mission which visited Zimbabwe in August - September 1988. The World Bank Appraisal Mission that visited Zimbabwe in February/March 1989 recommended that a feasibility study be undertaken for the consent of Pilot Forest Grazing.

The World Bank, the Government of Zimbabwe (GOZ) and Canadian International Development Agency (CIDA) initially entered into an agreement for parallel financing of the Mafungautsi Co-management Project. CIDA later funded a consultancy to help develop the proposal that was subsequently submitted to CIDA

around mid-1990. The formal agreement between the GOZ and CIDA was signed in November 1991 (FCZ Revised Project Management Document November 1997). The revision of the 1988 proposal in 1991 saw the incorporation of the wildlife sub-component. CIDA agreed to provide Canadian $1 340 000 which was meant for foreign currency requirements in order to acquire vehicles, equipment, monitoring and evaluation.

The co-management arrangement was to be implemented in all communal lands surrounding the Mafungautsi Forest covering 8 wards which are namely Njelele 1, 2 and 3, Ndhlalambi 1 and 2, Chirima, Muyambi and Ngomeni. The population of these wards is 82 799 (CSO 1992). The Zimbabwean government was expected to contribute from a local currency counterpart fund created through the monetisation of Canadian commodity exports.

Different interpretation of this agreement later caused some disagreements between CIDA and the government of Zimbabwe. By the year 2000 the government of Zimbabwe had contributed a small proportion of its share. CIDA's contribution ended up funding some recurrent expenditure. One, however, needs to appreciate the politics of development aid and begin to unpack aid as its distribution affects balances of power among competing recipient - country interests (Boyce 2002). The perceived misunderstandings by the GOZ might have been a tactical move as CIDA ended up contributing nearly all the resources needed for co-management.

Co-management could be viewed as a result of a change in the conservation narrative, which is being advocated for by donor communities (IUCN 1980; IUCN, UNEP & WWF 1991; Campbell 2002). The World Bank's Revised Forestry Policy also adds to the urgency of meaningfully co-managing forestry resources with the rural resource users (World Bank 2002). Participatory Rural Appraisals and Feasibility Studies were carried out in villages surrounding Mafungautsi Forest between 1993 and 1994. This saw co-management dropping the wildlife component and altering the grazing to free range within the forest rather the initial paddocks that had been envisaged under the 1988 proposal. This was mainly due to the limited carrying capacity of the forest and the people' opposition to a move that would entail limiting their livestock' access into the forest area and possibly an increase in

the stock theft within paddocks. Paddocking was also opposed due to the importance of cattle for draught purposes, which would have seen people walking long distances to collect their livestock in order to provide draught power.

Interviews in the research area also revealed the mistrust of the FCZ's generous proposal to provide watering points within Mafungautsi.[54] Some pointed out to the potential loss of animal manure, which greatly adds to soil fertility in light of the escalating costs of artificial fertilisers. Demarcation of grazing boundaries through fences for paddocks was seen as a potential conflicting point with communities that would have been excluded from the grazing scheme. This was a challenge on trying to introduce solid or hard boundaries in an instance where fluid boundaries have been serving their purpose well.

The FCZ has been under immense financial strain just like most of the government departments in Zimbabwe. The co-management initiative could be viewed as a two pronged solution: firstly, as a solution to the conflict existing between the resource poor communal lands and the resource rich gazetted forests. "The state control is being contested by the local communities on the grounds of legitimacy in terms of the history of land occupation as well as on the basis of the communities need for the forest products for their livelihoods" (Baker 1997: 21).

Secondly, co-management as a form of decentralisation in the forestry sector would attract funds that would help contribute towards the financial resources of the FCZ. The FCZ wrote a proposal to the World Bank as a follow up to the Rural Afforestation Program. A memorandum of understanding was then signed between the Canadian International Development Agency (CIDA) and the Government of Zimbabwe that would provide funding for the co-management project.

4.2. Why Co-management in Mafungautsi?

Reasons for the introduction of comanagement range from the political to the economic as well as ecological. However a reading of FCZ documents and

[54] One respondent said *pane kona yavaive vakananga*, which means that the FC was up to some trick, which would probably see communal farmers being forced to pay for fencing and water provision in the paddocks.

interviews with senior staff shows that the following reasons are given for the establishment of a co-management regime:

1. The differences in perception of the forest between the FCZ and local communities as discussed above, have led to conflict over its control and utilisation. Hence there has been a dire need to resolve the conflict between the FCZ and the local communities.
2. Sustainable management of the forest can not be accomplished in the face of conflicting management principles and regimes (This meant that co-management would be used as a conflict resolution mechanism between the FCZ and the local resource users).
3. Forestry development dynamics in many parts of the world have indicated resource sharing or co-management strategies as viable options for the management of indigenous State Forests subjected to high resource demands by local communities. This point could be questioned in that the fact that similar arrangements have worked elsewhere does not entail that they would work in Zimbabwe, as there are differences in the socio-economic and political settings. This further illustrates the role of donor funding, which embarks on 'development' projects from one country to another without critically assessing its suitability in a given context.
4. Zimbabwe enunciated a multiple use policy for indigenous forests in 1985 and since then, there has been a thrust to implement the policy (FCZ 1997: 21). The Mafungautsi Forest area has provided an opportunity for pilot implementation of the policy (Baker in FCZ 1997: 21).

In the concluding remarks of the FCZ 1997 Report it says, "It is important that the communities are made a part of the decision making and implementation process throughout the project" (Baker 1997: 22). These are the expressed reasons. Practice on the ground, as will be illustrated in the two case studies, seem to have different objectives in addition to the ones stated above.

Having looked at the motivation and reasons for co-management the next section now looks at an overview of the research area. Mafungautsi State Forest Reserve, in west central of Zimbabwe, is one of the 21 state Forests falling under the control of

the FCZ. Mafungautsi State Forest comprises some 82 100 hectares of forestland, which is part of a national estate of 827 200 hectares of indigenous forest reserves, mainly in the western parts of the country. Mafungautsi comprises of nearly ten percent of the indigenous forests being managed by the FCZ.

4.3. Overview of the Research area

Like most such state forests in Zimbabwe, Mafungautsi was created through the eviction of peasant communities originally residing in that area before it was placed under statutory designation in 1954. Tenurial debates in Mafungautsi are characterised by contests over legitimate ownership of the forest reserve. The community feels that the independence government owes the community restitution of its rights while the state as the custodian of the Forest Act of 1996 feels that the reserved forest must be protected for reasons cited in the first part of this chapter. It is therefore characterised by tenurial and other conflicts between official state forest custodians and surrounding peasant communities.

Over the years the boundaries of Mafungautsi have undergone cycles of expansion and contraction, reflecting the extent to which neither the FCZ nor the local peasant communities can assert effective and exclusive control over the forest estate. In 1972, 22 900 hectares were excised from the then 104 900 hectare Mafungautsi forest. Despite the removal of twenty-one percent, nearly one percent (900 hectares) was incorporated into the Mafungautsi Forest as a way of meeting the requirements of the Forest Act of 1996, which stipulate that for every piece of land that is de-gazetted from a reserved forest, another piece of land has to be gazetted. "The total extent of forest land shall not be reduced by more than one *per centum* of the total extent of forest land on the appointed day (Forest Act 19: 05 Section 34[2]). FCZ argued that they acquired unsettled land

> Pieces of *unsettled communal* land south of the forest were added to the forest as partial compensation for land transferred to communal lands. In 1986, the army forcibly removed settlers who had remained in the forest since 1972. (Italics added) (Maturure *et al.* 1994: 3).

This clause, it may be argued, was put in to ensure that the size of the forest reserves do not diminish rapidly. Such legislation is meant to perpetuate the government's protectionist approach. The areas that were incorporated into the forest in 1972

included parts of Nyaje an area which is also participating in co-management. The simultaneous excising with the gazetting of parts of the Nyaje area further raised communities' suspicion. The local communities were under the perception that, through the introduction of co-management, FCZ was planning to take part of their communal land. Nyaje villagers who lost their fields to the forest in 1972 felt that the FCZ was living up to its reputation of giving with one hand and taking away with another (Interview Mr Nkomo 2 August 2000). The revised boundaries were largely enforced in the post-independence period. For the local people this gave them the impression that even the postcolonial government considered communal areas land as "free land" - whether occupied or not.

A FCZ Report notes that "There was widespread rumour that the FCZ was now changing its strategy of expanding the forestry boundaries. The communities were dramatised to believe that the agro-forestry programme, where promotion of planting trees was being embarked on was done to assess the area's potential in order to grab the lands. This view was widespread in Ndhlalambi 1 and 2 wards and to some extent in Muyambi" (Undated FCZ Notes).

The issue of boundaries and unsettled or unoccupied land is very controversial when traditional land tenure ownership is confronted with modern cadastral boundaries (Hughes 2001a). Land use in the context of some rural communities is comprised of *soft* boundaries which comprise of shifting boundaries which are determined by the resource in question, what has been termed tenurial niches (Nhira & Fortmann 1993). These also have invisible fences and gates (Fortmann 1995). The assertion by the FCZ that the areas incorporated into the forest area were "unsettled communal land" demonstrates the wrong assumptions that were being made by the state .

The recognition that the conservation of the estate could only be secured with the support and co-operation of neighbouring peasant communities spans back to the 1960s (Phillips *et al.* 1962). Over the years management formulations that have sought to involve local communities have mainly been structured to secure conservationist goals, and not to genuinely empower such communities. Such formulations have come under a variety of fashion and populist sounding terms including the "community development" ruse of the 1960s (Mutizwa-Mangiza

1985), the co-management and resource sharing rhetoric of the early 1990s (Matzke & Mazambani 1993; Matzke 1993), and lately adaptive collaborative management.[55] This research uses the Mafungautsi case to expose some of the ambiguities and complexities of "peasant empowerment" under the co-management initiative. The central thesis is that the state and other external actors have sought to mould seemingly local institutions[56] and have tried to discipline these institutions towards the achievement of top-down conservation objectives. This thesis demonstrates that there is little scope for genuine local empowerment in partnerships in which community or committee apparently appears to be manipulated. The next section moves on to look at the socio-political complexity in relation to crafting the institutional infrastructure for co-management.

[55] For instance the Centre for International Forestry Research (CIFOR) has commissioned an extended research project on Adaptive Collaborative Management (ACM) in Mafungautsi.

[56] Cleaver (2000) calls for the need to focus on "getting the institutions right" (Cleaver 2000: 361). However, one could further add, that the institutions further need to have "real" powers for them to be able to effectively exercise their duties.

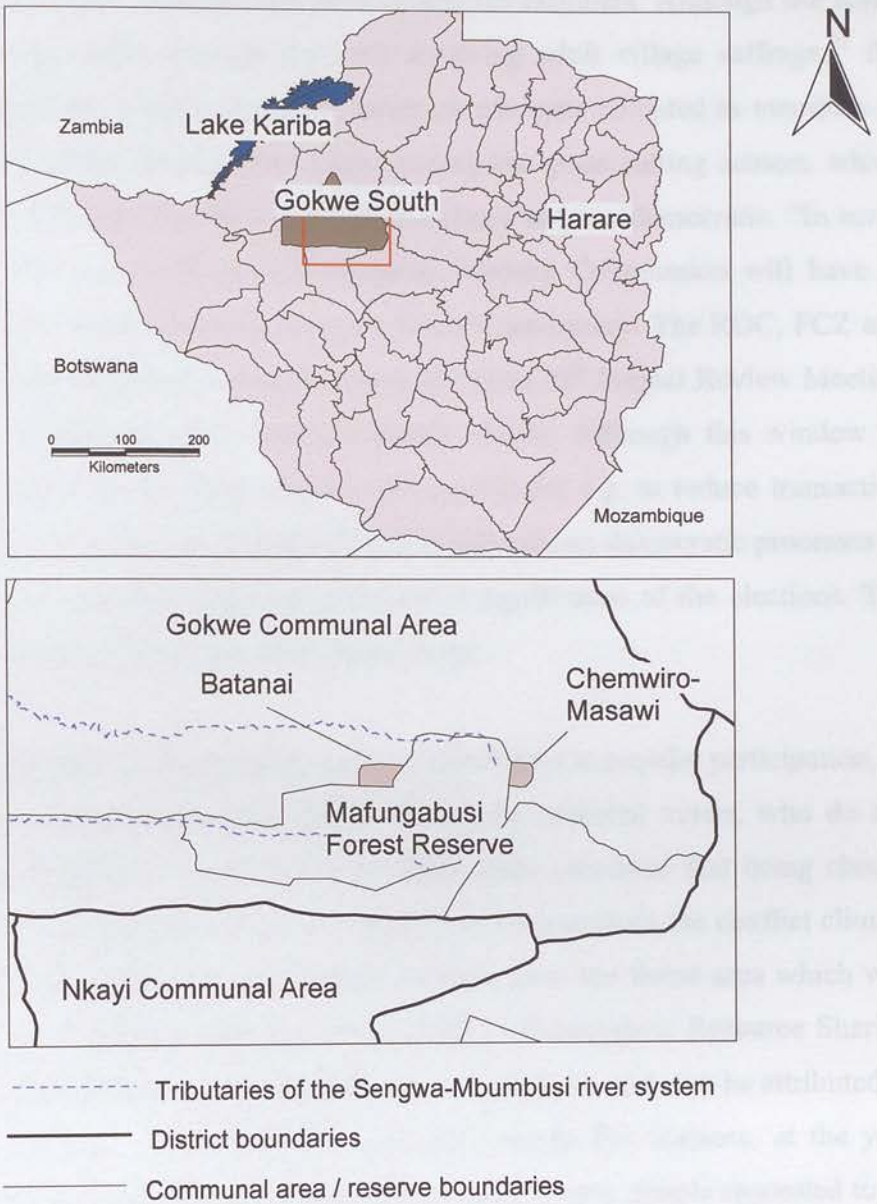


Figure 5: The location of Gokwe District in Zimbabwe and of Mafungautsi State Forest within the district

Figure 5 shows the location of the district in relation to the rest of Zimbabwe. The insert below shows the location of the two case study sites, which are Batanai and Chemwiro-Masawi RMCs.

4.4. The institutional infrastructure for co-management in Mafungautsi

In order to create a co-management partnership that includes local communities, the Forestry Commission has, since 1995, been involved in the setting up of Resource Management Committees. Figure 5 shows the case study RMCs. Ideally, a Resource

Management Committee comprises of seven members namely chairperson, vice chairperson, secretary, treasurer and three committee members. Although the RMC members occupy office through elections involving adult village suffrage,[57] the Forestry Commission wields advisory powers on who gets co-opted as members or subcommittees of the RMCs, particularly during the grass-cutting season, which spans June to October. The formation process seems to be undemocratic. "In some instances, RMCs were self elected/appointed. Forestry Commission will have to review the RMC formation methodology to ensure democracy. The RDC, FCZ and Agritex could be observers during the elections" (The 10th Project Review Meeting Minutes 2-3 September 1997, Kadoma Ranch Motel). Although this window of discretion enjoyed by the FCZ may be well-intentioned e.g. to reduce transaction costs of decision making, its overall effect is to subordinate democratic processes to bureaucratic fiat and thus discounting the social significance of the elections. The arrangement also reinforces top-down orientations.

Electing RMCs itself is also a patchy process with regard to popular participation, as it often does not generate much interest among the potential voters, who do not attach much significance to the elections. Mark Dube remarked that being chosen into the RMC was being perceived as "*chituko*" or a curse given the conflict climate that had been epitomised through forced evictions from the forest area which was effected by the Zimbabwe National Army (ZNA) (Mafungabusi Resource Sharing Workshop, 6-9 November 1995, Gokwe). Lack of interest could also be attributed to the unresponsiveness of the FCZ to the people's needs. For instance, at the year 2000 pre-grass cutting workshop at Shingai Training Centre, people requested to be permitted to sustainably collect fibre for construction purposes. The FCZ responded by saying that the peasants should buy ropes - which are beyond reach for the peasant farmers. Earlier, in 1995, a FCZ official had indicated that the Mafungautsi should be viewed as a factory machine, which meant that trees were not to be

[57] Any adult resident within the village above the age of 18 is entitled to vote. In some instances this 'right' can be manipulated to meet specific ends. For instance a 30 year old man was disqualified from standing for councillorship as he was said to belong to the youth in terms of the ZANU PF structures. Immigrants with new ideas and perceived to be ambitious were often referred to as *'Mafikizolo'* meaning recent arrivals. At a meeting to discuss development issues with the national broadcasting agency, the Zimbabwe Broadcasting Corporation (ZBC), the immigrants were accused of trying to usurp power, as they have no understanding of how issues have "traditionally" been resolved in Gokwe. A close associate of the councillor murmured that that's why they no longer wanted immigrants.

removed. He further suggested the planting of trees within the communal land as "spare parts" for the Mafungautsi factory.

RMCs themselves have to be pieced together from a multiplicity of local institutional bases, adding to the ambiguities and complexity of the whole process as shown by Figure 6. The complexity was due to the insertion of a new institution, the RMC, into a community, which already had a number of overlapping institutions. One could argue that a number of donor initiatives do not want to be part of an existing framework. Introducing new institutions, even if they are redundant, will make them "more visible." There was a similar incidence in the same Midlands Province in the water and sanitation programme. A donor organisation dug a new borehole because they did not want to rehabilitate an existing one. The following section will look at the Resource Management Committees, which will further demonstrate the socio-political complexity in the crafting of the institutional infrastructure.

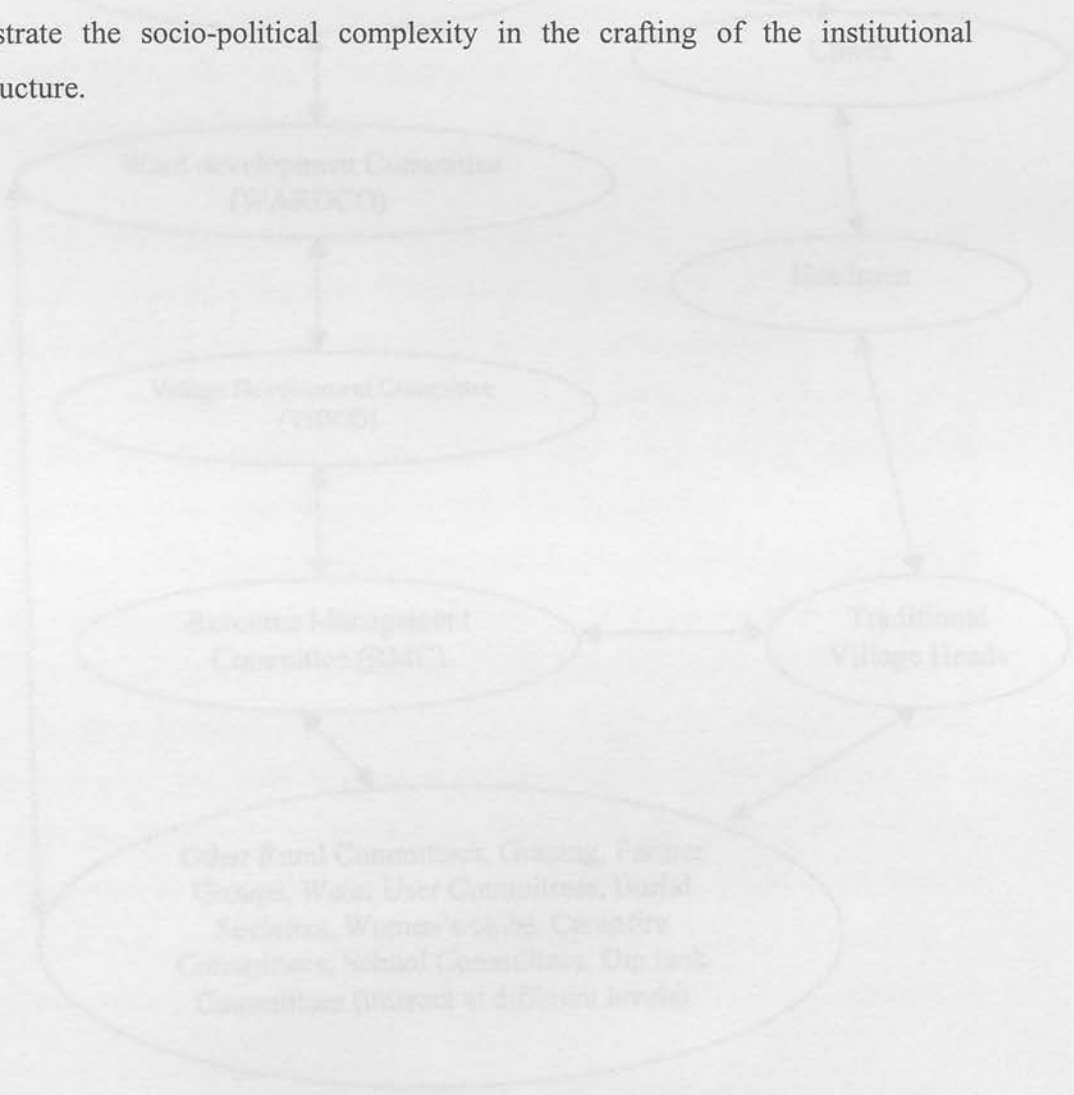
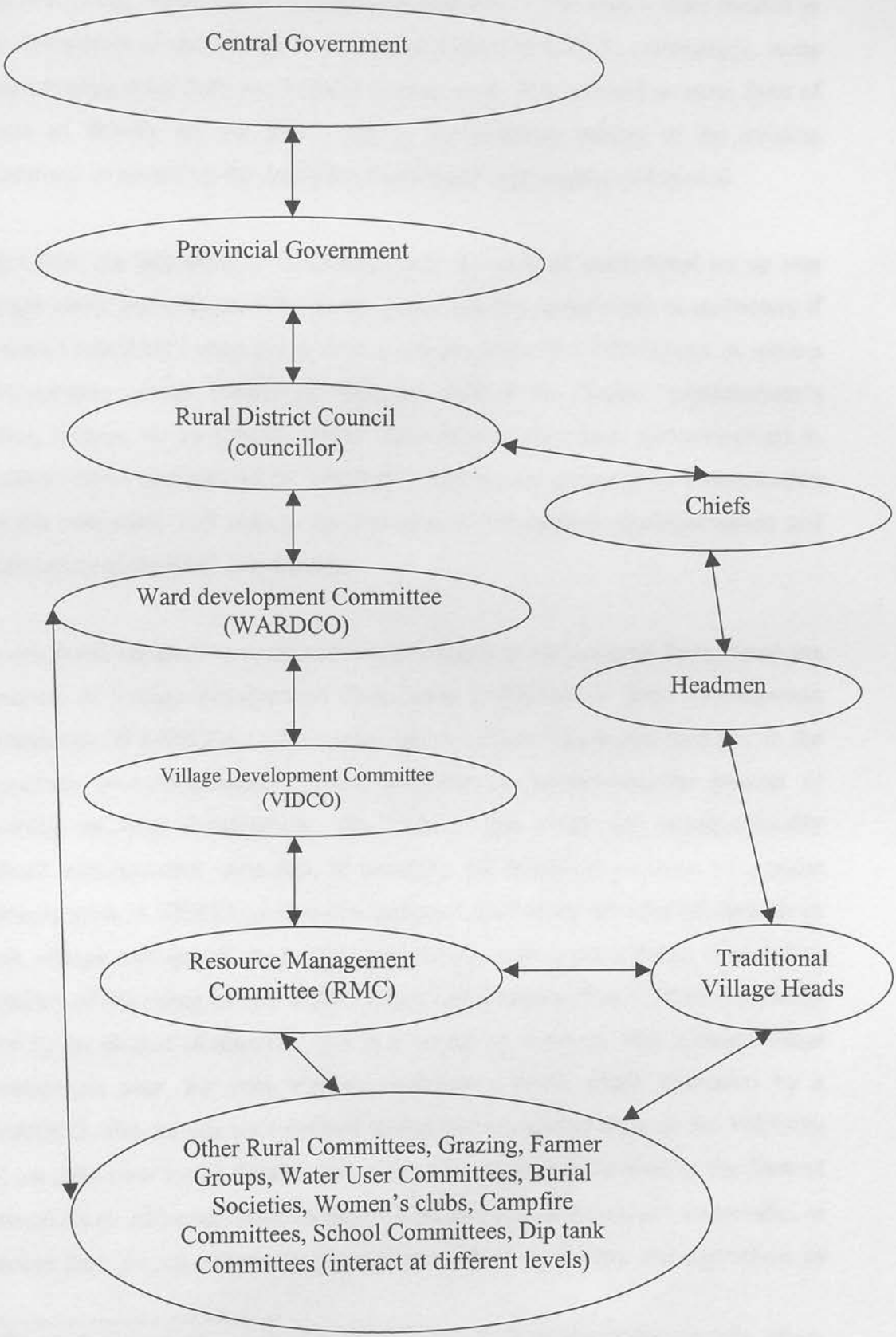


Figure 6: A Simplified Institutional Organogram on Zimbabwe's Rural Local Governance System



4.5. Resource Management Committees

Resource Management Committees (RMCs) were introduced as part of decentralisation within the co-management initiative.[58] The RMCs were formed as sub-committees of the Village Development Committees BUT, confusingly, some were covering more than one VIDCO or even ward. This resulted in some form of 'crisis of identity for the RMC' due to its confusing linkage to the existing institutions as shown by the simplified institutional organogram, in Figure 6.

Right from the beginning of co-management, the issue of institutional set up was already under contestation. "Mr Mateta questioned the compromise in uniformity if in some cases RMCs were going to be a subcommittee of a VIDCO and in some a subcommittee of the WARDCO" (Meeting held at the District Administrator's Office, Gokwe on 14 October 1994). How RMCs have been operationalized in practice will be analysed below. The RMC activities are governed by a constitution and the case study will analyse the processes of formulation, implementation and contestation of the RMC constitutions.

On one hand, residents in communal lands adjacent to Mafungautsi State Forest are members of Village Development Committees (VIDCOs) or Ward Development Committees (WARDCOs), units created under a Prime Ministerial directive in the immediate post-independence period, ostensibly to democratise the process of planning for local development. The VIDCOs and wards are demographically defined administrative units that, in principle, are based on a system of popular representation. A VIDCO consists of 6 members, 4 of whom are selected through an adult village suffrage of about 1000 households, with 2 posts being allocated to members of the ruling party's Women and Youth Leagues. The VIDCO is presided over by an elected chairperson, and it is tasked to come up with a local village development plan. Six such villages constitute a ward, which is headed by a WARDCO, also having six members constituted on similar lines as the VIDCOs, but presided over by an elected councillor, who represents the ward at the District Council level. Although VIDCOs and WADCOS in principle appear democratic, in practice they are not effectively representative of local interests and aspirations as

[58] Decentralisation of power and responsibilities were cited as one of the principles of co-management in Mafungautsi (FC 1997).

argued by some researchers (Murombedzi 1991; Mandondo 2000; Mapedza & Mandondo 2002). In Batanai RMC the current councillor is not popular as he was accused of stifling development, especially on the issues of a school and dip tank. The people were further surprised when he was interviewed on the national radio saying that he had managed to successfully develop his ward since his election. In Chemwiro-Masawi the councillor was said to be doing nothing to convince the RDC that timber revenue had to be ploughed back to the communities.

Moreover, the VIDCOs and WARDCOs were not created in an institutional vacuum - they were superimposed on a "traditional"[59] system of social organisation. In this system the household (*musha*), under a patrilineal household head (*samusha*), comprises the smallest social unit. Several households constitute a village (*bhuku*) under the village head (*sabhuku*). Several villages constitute a *dunhu*, presided over by a headman (*sadunhu*), and these in turn constitute chiefdoms (*nyika*) under the chief (*mambo*). Related traditional institutions include spirit mediums, rainmakers and other holders of ritual office (Bourdillon 1991). The role of RMC chairpersons was made more difficult as even their fellow committee members would question their legitimacy. In an interview on 4 November 1999 with the Batanai RMC Chairperson on why they were not effectively mobilising the people, he pointed out that he needed to mobilise the RMC itself before moving to the ordinary peasant farmer. Some people would remind him that he was not the villagehead or the headman. The institutional ranking conducted on 30 November 1999 rated the Villagehead and traditional leaders highly with 69 points, with RMCs getting 11. Councillors and the Member of Parliament each got 0. The support for traditional leaders was even more resounding in Mutanhaurwa[60] village where 216 people felt that the traditional leaders were the most appropriate institutions for rural development initiatives. Vidcos got 48 with councillors getting 33.

[59] Most of the so-called traditional institutions were remoulded to extend colonial rule over the African population through a system of indirect rule. For instance, the term *sabhuku* literally and symbolically means the keeper of the book - i.e. records of taxes extracted from the African population by the colonial governments through these leaders. *Bhuku* is a "*Shona*lised" English word for book.

[60] Mutanhaurwa village is not one of the two case studies RMCs BUT it is participating in the co-management.

The VIDCO-WARDCO and traditional systems of leadership rely on different systems of legitimisation, which makes conflict between them inevitable. Each of the two systems relies on a unique corpus of regulation systems. Among other things, traditional regulatory mechanisms include explicit rules as well as implicit norms and taboos including a moral economy of "rules that are written within the hearts of the people". Local censure mechanisms include payment of material fines, admonition and belief in the omnipotence of the spirits and spiritual censure (Matowanyika 1991; Mandondo 1997).

Rather than a simple matter of "top-down" "disciplining" for conservation objectives, the new organisations seem to be entangled with both bureaucratic politics (at multiple scales) and local politics. The Chemwiro-Masawi pre-grass cutting workshop recommended that the RMCs should be a subcommittee reporting through the village head. Example of traditional judiciary in natural resource issues include the judgements given by Headman Ndhlalambi in Batanai on the 29th of June 2000 when 9 people were ordered to pay Z$490 each for cutting down fruit trees for various purposes.

One needs not over-romanticise the respect of traditional leaders as they are dynamic and are being faced with new challenges. Village heads in both Batanai and Chemwiro-Masawi lamented the loss of control over their people as a result of challenges from new churches, mainly the Seventh Day Adventist (SDA) church. A village head, Mr. Nkomo, in Nyaje pointed out that he had to set aside a fine for one of the villagers after the sons of the accused who are based in urban areas threatened to sue him. As a traditional leader he felt it was face saving for him to drop the fine rather than be "dragged to court" by people who claimed to have lawyers. In Batanai a village head was severely assaulted and suffered broken ribs as he was accused of having handed down a biased verdict on his Sunday court sessions. The councillor for Batanai in an interview with the researcher on 2 September 2000, argued that the RMCs were not going to succeed as they were hiving themselves off from him as the representative of the RDC. He further argued that even the proposed school in Batanai would not materialise, as he would fight to assert his power over the

traditional headman of the area. He likened Batanai people to the grass bearing the brunt of two elephants fighting.[61]

In both Batanai and Chemwiro-Masawi there were further conflicts between traditional leaders and VIDCOS. VIDCOS viewed themselves as having positively contributed to the liberation of Zimbabwe from the colonial administration, which resulted in independence in 1980. Traditional leaders were labelled collaborators with the colonial administration. Whilst it is true that some traditional leaders buttressed the colonial regime, some chiefs were known for fighting against the colonial administration thereby costing them their lives, chieftainships or even allowances (Ranger 1982; Alexander 1993; Nyambara 2001). In Gokwe Chief Mukoka was labelled as uncooperative in terms of the enforcement of conservation measures (Nyambara 2001). Within VIDCOs in the Gokwe area, there were conflicts between former ZANU (PF) members (mainly Shona) and former Zimbabwe African People's Union (ZAPU)[62] (mainly Ndebeles). On the other hand official regulation systems are part of a top-down rational-legal corpus that bears little relation to local cultural systems. In practice the two systems have permeated and contaminated each other such that practical interaction in everyday social practice reflects a mix of both, and the extent of blending varies from time to time and from place to place depending on preference, precedence and other factors. The RDC, interestingly, felt that the institutional multiplicity and confusion was going to be solved through "awareness workshops" which would define roles for all the different committees and sub-committees.

Local government reforms towards the turn of the 21st century have further conflated the above structures with a new system of village and ward assemblies. These are constituted through a curious mix of elected and nominee leaders and representatives. Membership of the village assembly is open to all adults in the village, but such bodies are presided over by hereditary traditional leaders, whose nominations and appointments are approved by chiefs and the minister - *in*

[61] The councillor was also accused of converting cement donated to kick start the school project into personal use.

[62] This was the second largest political party in Independent Zimbabwe. It merged with ZANU (PF) through the Unity Accord of 22 December 1987, paving way for its leader, Dr. Joshua Nkomo, becoming the co-Vice President in Zimbabwe.

accordance with local culture.[63] A ward council comprises of village heads of its constituent village assemblies, a councillor of the ward and a cohort of headmen nominated by chiefs and endorsed by the minister of local government and national housing.

The ward assembly is presided over by a headman elected by members of the assembly from among themselves. Village assemblies elect VIDCOs and supervise and approve plans from VIDCOs, whilst ward assemblies oversee all the roles and activities of their constituent VIDCOs. The superintendence of RMCs, headmen and village heads over VIDCOs and WARDCOs elevates a system of nominee lineage leaders over elected representatives. Furthermore, the village head to headman to chief to minister cascade of approving hereditary nominees potentially creates a system of patronage in spite of the appointment of such leaders *in accordance with local culture.* The new allowances for Chiefs and headmen are now widely viewed as a patronage mechanism for the government to get support in the face of stiff competition for the electorate from the opposition party.[64] Traditional leadership is based on gender, seniority and caste, as it is normally conferred upon male elders of certain lineages, recreating the erstwhile decentralised despotism[65] administrative model of the colonial period (*cf.* Mamdani 1996, 1999). The same could be said with traditional leaders in Zimbabwe.

The introduction of remuneration for both the chief and headman and possibly villageheads in the future has set in motion new struggles and dynamics. The conflict between the Batanai councillor and headman has now taken a new dimension. The councillor now wants the ward to be split into two, so that he becomes the headman for the other ward, a better rewarding post than that of councillorship, which relies on allowances and is subject to re-election. The conflation of village and ward councils upon VIDCO-WADCO and traditional leadership systems is a recipe for further conflict. The likelihood of conflict is

[63] Traditional Leaders Act of 1998.

[64] The allowances of chiefs and other traditional leaders have been increased by over 170% (Mataire in The Daily News 23 November 2002, see also Chiefs now mere pawns in Zimbabwe's political minefield by Matikinye in The Daily News 21 and (the Bulawayo Correspondent) 29 January 2002 and The Herald 17 April 2002).

[65] It is important to note that despite having support over councillors traditional leaders are not subjected to electoral process and this tends to weaken downward accountability.

further aggravated when foresters seek to enlist local support for conservation through the creation of partnership committees that should potentially be representative of and nuanced with all these systems. Overlapping and non-concordant and ever-changing memberships and degrees of interest, affection and association within and between these systems and units further add to the contradictions of forging locally-legitimate RMCs in view of the extent of entanglement of the systems.

Not surprisingly RMCs have been variously constituted at the level of sub-committees of VIDCOs, at VIDCO level, or even at the level of three or four VIDCOs. The first 1995 RMC in Batanai was at ward level and was made up from four VIDCOS. In 1996 this was dissolved and four VIDCO - level RMCs were established. Whilst some of the RMCs coalesced into larger units others disintegrated into smaller units possibly reflecting the contestation and negotiation of interest within and across various groups. The question of scale with respect to size of units for local natural resource management lies at the centre of the Common Property Resource (CPR) debate (McCay & Acheson 1987; Ostrom 1990; Berkes & Farvar 1989; Murphree 1991). Small units appear to be favoured as people are assumed to be in everyday social contact, which is thought to foster social cohesion, and thus reduce the transaction costs associated with resource use and management.[66] The evolution, in Mafungautsi, of RMCs across a range of scales is probably a reflection of complexity and entanglement across local ecological and social systems. Rather than being seen as a problem requiring institutional "packaging" it lends weight to Murphree's (1990) argument that small has to be conceptualised with respect to ecological and socio-political constraints. VIDCO sub-committees appear to have enjoyed favour within FCZ as appropriate units around which RMCs were moulded. This appears to go against the 'small is beautiful' grain of logic as well as what has evolved on the ground. The next section considers the question, whose agenda? Before concluding by briefly looking at co-management and the conceptual framework.

[66] Researchers including its early proponents have empirically and theoretically questioned 'small scale' as suitable units for natural resource management. Others have radically argued that you need larger units *(cf.* Beckerman 1995's argument that 'small is stupid'.

4.6. The RMCs: Whose Agenda?

The whole set up seems to have been an initiative driven by the FCZ with CIDA's backing. The people were simply pulled along, as they were not involved in the actual negotiations of co-management. Most people seem to have been interested in getting land in Mafungautsi. During the feasibility study workshops one villager lamented how they were not negotiating co-management but were simply being lectured on forestry:

> What we are doing with the Forestry Commission is that we are putting them into a position of teaching us. Our grievance is for you to meet our needs-people want fields, gardens. I asked my children what they answered you (*referring to the questionnaire survey*). They were crying for fields, gardens in the forest area. Forestry Commission is showing us importance of forests - not meeting our needs (Nhira's Notes dated 9 December 1993, Italics section has been added).

Right from its conception the co-management in Mafungautsi seem to have been decided by the FCZ with the financial backing of CIDA. The local communities might have spoken, but their voices were not taken into account when the final co-management arrangement was put into practice as will be shown later in Chapter seven.

4.7. Co-management and the conceptual framework

The evolution of co-management and its implementation will be analysed within the framework of decentralisation of natural resources. The different actors, powers devolved, decisions being localised, the accountability mechanisms and their implications for the social and ecological outcomes will be analysed. Ecological outcomes tend to take a long time to be effectively analysed so any comments in this respect will only be tentative. The powers will be assessed within the framework of judiciary, executive powers and legislative powers (Agrawal & Ribot Summer1999; Ribot 1999; 2000). These various powers will then be assessed in terms of accountability mechanism to see whether they are downwardly accountable (to their electorate) or upwardly accountable to the FCZ or other institutions at a higher level. These issues will be explored further in chapter seven.

This chapter showed that the motivation towards the establishment of co-management was a donor driven initiative which was conveniently accepted by the FCZ which was facing some financial difficulties in line with the austerity measures

introduced under the Economic Structural Adjustment Programme (ESAP) introduced in the 1990s. The next chapter will look at the research methods that were used in the Mafungautsi co-management research.

Chapter Five

Research Methods

In selecting certain methods you are consciously or unconsciously taking aboard their methodological assumptions about the nature of the social world and the principles of social enquiry (Hall and Hall 1996: 29)

5.0. Introduction

The previous chapter showed the setting up of the co-management arrangement in the Mafungautsi area of Gokwe. Theoretical reviews show that it is only downwardly accountable institutions which are more likely to result in positive social, economic and ecological outcomes. Questions thus emerge on the issues of powers given to the devolved institutions and their accountability arrangements. This chapter outlines how these questions and assumptions were tested in the field through the use of various research methods. Triangulation was used as different methods were used to measure the same phenomenon.

5.1. Research Methods

This study uses review and case-study approaches to critically examine the ambiguities and complexities of "peasant empowerment" in a co-management arrangement from a Zimbabwean protected forest interface zone. The study questions benign-sounding presumptions of co-equal partnership status among co-managing actors that are often implicit in the designs of such projects. It argues instead that real-life co-management lies at the intersection of interests arrayed in particular sites, including states, international organisations, business and grassroots actors.

The main research period was between September 1999 and August 2001.[67] I first visited the Mafungautsi area in 1997 as a field trip which formed part of the two-day Project Review Committee (PRC)'s 10th meeting held in Kadoma, in the Midlands Province of Zimbabwe. My interest in Mafungautsi further developed as a result of the initial field trip. The co-management in Mafungautsi had its own in built review

[67] The researcher carried out a preliminary research in 1998, which covered areas such as Batanai, Chemwiro-Masawi and Kana. The Center for Applied Social Sciences (CASS) at the University of Zimbabwe through Calvin Nhira had earlier on initiated research into the Mafungautsi area of Gokwe.

and I was specifically interested in the dynamics of the co-management arrangements through looking at powers devolved and the accountability arrangements.

I then carried out a second reconnaissance survey into the Mafungautsi area of Gokwe in 1998. The recognisance survey was meant to identify research sites. This also included a preliminary questionnaire survey for Batanai, Chemwiro-Masawi and Kana area. During the reconnaissance survey it was felt that Kana was too far away from the Mafungautsi Forest Boundary hence it was not involved in the co-management program. The Kana area was involved in a "grazing project," which involved the collection of thatching grass as well. This alternative source made them less dependent on the Mafungautsi thatching grass under the co-management initiative. Discussions with the FCZ for a success and failure RMC were also held during the reconnaissance mission. The research was meant to try and carry out research in a poorly performing RMC and the other one performing well so that one would try to account for the difference in the two outcomes.

As will be shown later, this criteria did not prove to be useful as what is labelled success by the FCZ might have nothing to do with the performance of the RMC - but its allegiance to the FCZ. This was carried out as feelers to help identify the key issues in the Mafungautsi Forest area of Gokwe. The two case studies may be justified in the sense that Batanai is situated in an area, which was de-gazetted in 1972, and it offers an interesting contrast with Chemwiro-Masawi, which has a longer settlement history. Commercial logging of timber took place in the Chemwiro-Masawi RMC area and this offered an important opportunity to look at the co-management dynamics in the context of logging proceeds and compare it with Batanai RMC where there was no commercial logging of timber. At the beginning of the research there were 8 RMCs. By August 2001 when the fieldwork ended, the total had risen to 15 RMCs.

The land invasions within the research area began towards the end of the research period. Land invasions are the forceful and illegal occupation of mainly white-owned commercial farms by the pro-government war veterans within the framework of the government's "Fast Track Land Resettlement" which is meant to address the

racial land imbalances. This research is not on the land invasions *per se*, but looks at how the invasions have impacted on the co-management dynamics. For a detailed report on the "land invasions" up to August 2001 see Marongwe (2002).

Prior to the identification of the case study RMCs, I held key informant interviews with most of the traditional leaders in the proximity of Mafungautsi Forest Reserve. These included Chiefs Njelele (now deceased) and Mukoka, Headmen Ndhlalambi, Chirima (now deceased), councillors, Kana Grazing Scheme members, Zimbabwe Farmers Union (ZFU), Grain Marketing Board (GMB), Cotton Company of Zimbabwe (Cottco), Organisation of Rural Associations for Progress (ORAP), village development committees (VIDCOs), kraalheads, Batanai Burial Society, Batanai Women[68] Garden Project, RMC members and some villagers. Government departments such as Agricultural Technical and Extension Services (AGRITEX), Forestry Commission (FCZ), Department of Natural Resources (DNR) and the Gokwe South Rural District Council were consulted in the reconnaissance mission. The Gokwe South Rural District Council further gave permission for the research to be conducted in the Mafungautsi area. Batanai and Chemwiro-Masawi were then selected out of the initial 8 RMCs in the Mafungautsi area. Some interviews were recorded on tape to be transcribed later.

The oldest villagers such as "vaOne" proved to be helpful "human archive". The information obtained from such sources was used to cross check the official records written by the Native Commissioners. It is equally important to be aware of the pitfalls of oral evidence as it can be easily distorted in order to project a particular image. Official minutes of the RMC meetings were also used. The disadvantages of using such official data are that it tends to be selective and it might not reflect the issues raised in those meetings. Archival records were an important source of information on the background of Gokwe South District. These traced Gokwe's history from the time it was part of the Sebungwe region up to when it was partitioned into Gokwe South and North in July 1993. Gokwe South Rural District Council came into existence due to the "amalgamation" Act (Rural District Councils

[68] All members are women except the villagehead who is also a member. They also act as a society lending each other money to buy kitchen utensils - the village head buys utensils for his wife who is a member as well.

Act of 1988) as implemented from July 1993. In contrast Gokwe South was created not due to the amalgamation in the literal sense, but was due to the separation of Gokwe-Cheziya District Council into Gokwe North and South Rural District Councils.

I spent at least two months in each RMC. This was only a period of residence but I also followed up issues in other RMCs. I also attended RMC meetings, workshops, developmental meetings and political party meetings.

Field research assistants helped with data collection and they all kept field notebooks which had to be filled in on a daily basis. Whilst it makes acceptance into a research area much easier when working with local research assistants, one of the potential dangers is that the research assistants are also part of the power struggles and dynamics. They might end up being trapped in their local politics to an extent that they would not be able to collect impartial data. One other strategy was to also make sure that they were from both *Shangwe* and *Madherukas* groupings. In instances where meetings were held in my absence, research assistants took notes of all the proceedings. These, together with minutes taken by myself were important in cross checking the official record of the meetings.

Traditional leaders court sessions were also attended. These were opportunities to listen to traditional jurisdiction powers being exercised. Traditional leaders also tried people who had violated traditional tree conservation rules and regulations. This was an opportunity to assess how well traditional conservation mechanisms were still being enforced. Since the meetings do not neatly fit into RMC boundaries, in a number of instances, meetings outside the research area were also attended especially those discussing issues pertinent to the research. Key informant interviews[69] were conducted, segregating groups along gender and age differences. Historical household profiles were also conducted for some individuals and households especially those who were actively involved in the harvesting of forestry

[69] It is important to note that the human mind is highly selective when it comes to historical narrations - at times it tends to be negotiated from the present (Chambon 1995; Fairhead & Leach 1994; Townsend 1995, *cf.* Nygren 2001. See also Fortmann (1995) on how 'stories' convey certain narratives and are highly selective depending on, amongst many things, the audience. Peters (1984)

products. A total of 240 household questionnaires were administered with 119 being administered in Batanai and 121 administered in Chemwiro-Masawi.

Changes in land cover were examined through a combination of Participatory Rural Appraisal (PRA) (Chambers 1994; IIED 1995) and analysis of historical aerial photography. Interviews with selected groups of local inhabitants were conducted during the research period to identify current land use, perceived changes in vegetation, and their possible causes. The following sections give a more detailed account of the field research methods used.

5.1.1. Participatory Rural Appraisal (PRA)

Participatory Rural Appraisal has arisen due to the shift in rural development paradigm (Chambers 1997) which promotes the advancement of the bottom-up approach and views the local community as being central to any form of meaningful rural development. This entails that the local people should be responsible for their fate unlike the previous top-down approach (Murphree 1991). This is an international research technique as an alternative and to complement the conventional survey research methods. It is intensive, systematic and semi-structured learning with the community (Theis & Grady 1991). Participatory Rural Appraisal (PRA) is now regarded as an appropriate tool for carrying out rural development researches (Messerchmidt 1995; Goebel 1996). There is an increasing conviction that development through the use of participatory methodologies is a critical component for the success of development (IIED 1995; USAID 1987; Baker *et al* 1988; Cernea 1991; Gujit 1991; Uphoff 1992, World Bank 1994, Chambers 1983,1997). Participatory methodologies, where used properly, will result in the collection of data that has relevance to the community. Gokwe area has some of the lowest literacy levels in Zimbabwe[70] (Central Statistical Office 1992), so participatory approaches had to be used.

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cited in Fortmann (1995: 1054) argues that stories are an important oral manifestation of a local discourse seeking to define and claim "local" resources. See also Rose 1990; Roe 1991).

[70] See 'The forgotten people of Gokwe North' (Iwueke in The Daily News 20 September 2001) on the lack of development in Gokwe North which was the same trend in Gokwe South as these two districts used to be one district prior to 1993.

A basket of participatory methodologies were used to complement data collected using other research methods. Participatory appraisal encourages meaningful community participation. It goes beyond getting agreement to decisions by local authorities but to involving local communities in identifying problems and opportunities and taking action for change (New Economics Foundation 1998):

> Community appraisal is a survey of the community, by the community, for the community and an action plan or list of recommendations for the future of the community (New Economics Foundation 1998: 27).

One has to be aware of the pitfalls of using some of the participatory approaches. Some researchers have critically questioned some of the assumptions in participatory approaches (Cooke & Kothari 2001, *cf.* Pretty 1994, 1995; Cleaver 1999). Pretty (1994) further gives a typology of participation starting from passive participation, participation and information giving, participation by consultation, participation for material incentives, functional participation, interactive participation and self-mobilisation (IIED 1995 *cf.* Pretty 1994).

These participatory tools were also intended to obtain information and views from various sectors of the community. The Participatory Research tools seemed suitable in the context of Gokwe due to their empowering nature where they give a voice to the voiceless (Chambers 1983). PRA is tailored to make sure that all people participate. The use of stones and seeds in participatory approaches allowed local people to use things they are familiar with rather than chalks and pens which might be associated with the schools and institutions of higher learning. Various flexible techniques were used in the Mafungautsi area. No hard and fast rules were followed in the PRA exercises, as they had to be responsive to the needs and the dynamics of the different groups. Some of the PRAs took a lot of time and food was provided to make sure that people were well fed during the exercises.

Focused group discussions involving up to 10 people[71] were used to discuss different uses of the forest and perception of change over time. Follow-up discussions were then conducted separately with groups of men, youths and women,

[71] The exact number of participants varied from one case to another and would be a response to the number of people who came and local group dynamics. However those who 'distracted' other

thereby encouraging women and youths to express views independently of men. Cleaver & Kaare (1998) however, point out that in the Tanzanian Water and Sanitation Programme there were many men speaking with a few women talking. Further research in Tanzania, indicated that women had deputed one or two women who were eloquent speakers in order to effectively represent their interests. The focused group discussions helped out to bring the voice of the women whom, as evidenced by some meetings in Gokwe, were dominated by men with women being quiet. While this was the general trend in Gokwe, there was however one particular case of a very vocal woman who at one time became a member of the RMC. Group discussions separated by gender and age helped to get different views on issues such as priorities of development. In Batanai, one of the RMC case study areas for instance, men put the issue of a dip tank as their main concern whereas women in the same community felt that the main issue was the construction of a primary school in their area as their children where walking very long distances to Nyaradza Primary School. The same trends emerged with the perceived changes in terms of forestry and vegetation cover where women lamented the increasing distances which they had to walk in order to collect firewood whereas the men where more concerned about poles for the construction of maize storage facilities, the *"ngarani"*. Despite the fact that women brought together would be better positioned to articulate their concerns the facilitation skills had to be used to make sure that even amongst the women themselves there was no domination by other women. The same could also be said about the male and youths groups. PRAs were conducted in both RMCs. The main exercise was conducted in August and September 2000. This was timed in order to have bigger attendance as this is usually the off farming season which tend to have less disruptions in terms of the normal farming activities.

5.1.2. Institutional Mapping and Ranking

Institutional mapping and ranking was also carried out in order to identify the institutions working in the Mafungautsi area. The institutional ranking exercises helped identify the institutions that are considered to be more relevant and meeting the needs of the local people (IIED 1995). An Agricultural Extension (AREX) worker later spoke to one of the research assistants highlighting his fears that the

respondents were moved to individual interviews so that the group is not a reflection of an individual's ideas but of all members of the group.

people no longer wanted him as he was lowly ranked in one of the PRA exercises. This exercise triangulated with key informant interviews helped to identify the accountability mechanisms within various institutions operating in the case study communities.

During this exercise people freely pointed out their perception of the operations of various institutions and personalities. One woman lamented the low levels of education in Batanai, which she then attributed to the low levels of development, as people could not mobilise themselves against organisations such as the FCZ (Batanai PRA Exercises of 30 August 2000). This was done in a flexible manner. After the mapping exercise listing of institutions were then done using shapes chosen by the community. In some cases people would use shapes such as a hat for a chief and a crescent for a headman. Each person in the group was given seeds or stones to place below symbols of their choice. The symbol with more seeds/stones was an indication of the most effective institution.

The results were summed up to see the proxy votes that different institutions were working with. The results were then discussed in the group and people could make adjustments if they felt that the results did not closely approximate the situation on the ground. This helped to assess institutions that work closely with the community. This also gave a reasonable picture for identifying institutions that could be helpful to the communities (IIED 1995). Community leaders presence was likely to have an impact on the institutional ranking exercises. People tended to freely express themselves in the absence of their leaders.

5.1.3. Wealth Ranking

This is a PRA tool that was used to ascertain the differential wealth levels amongst the households in Mafungautsi. The community decided on the criteria used to assess household wealth. This gave an indication of household differences to be used to assess the impact on households. Amongst Kenyan herders wealth ranking helped to cast light on household differentiation and perceptions of solutions to herding problems (IIED 1995). Once one identifies social stratification in a community this will enable assessment of various priorities. Information provided in

most cases is loaded with social class values and meanings. Participatory Rural Appraisal has to be facilitatory and sensitive so that the wealthy will not take advantage of their position at the expense of the poor households (Waters-Bayer 1995). In both Batanai and Chemwiro-Masawi more stones and seeds were allocated to households with more livestock. It was argued that those with more livestock could plough bigger plots in good time, resulting in higher yields and higher incomes, which enabled them to send their children to school. They would be able to build better houses and a few of them could even invest in businesses such as grinding mills and shops.

5.1.4. Focused Group interviews

This is where a group of people is jointly interviewed as a group about a particular subject. This is an important approach in forestry if the research wants to get views from different people who may be grouped according to gender, age, wealth and ethnic background. This research approach accepted that there is no uniformity within the rural area. This further helped to demystify the concept of community as a grouping of people with common goals, ambitions, interests and objectives. This method then seeks to listen to all voices, including the low voices that are often unheard through the 'conventional' research methods (Chambers 1983). The aim is to get views from all the people without the powerful dominating the whole process. This will also help ascertain different priorities among the different stakeholders in Mafungautsi.

5.1.5. Seasonal Calendars

These were used to determine seasonal household activities and capture seasonal forestry use patterns (IIED 1999). In both case study sites it was important to see how people structure their household activities. One would then superimpose the co-management activities and determine their implications on the household activities. The fact that the FC blamed RMCs for being "interested in grass only" and not the monitoring of the forest throughout the year does not take into account the household's labour demands for agricultural production (*cf.* Worby 1992 on cotton production in Gokwe). Co-management has to be inserted within the household's political economy if it is to be relevant to the rural communities.

broom grass collection, areas affected by fire, areas where pole poaching was common and cropland areas damaged by wildlife.

Black and white 1:50 000 aerial photography from 1996 was used for these interviews, which were subsequently enlarged to 1:25 000 scale to make interpretation easier. Separate photo mosaics were obtained for the two study areas of Batanai and Chemwiro-Masawi. Aerial photography was used in preference to large-scale topographic maps because previous studies suggested that they were easier to interpret among those with only basic education. Aerial photography has successfully been used in interviews with lowly educated farmers in Nepal (Mather *et al.* 1998), Cote d'Ivoire (Bassett 1993) and in educational studies of young children from South Africa, the United States, England, Mexico and Iran (Blades *et al.* 1998).

Three interviews based around the aerial photographs were conducted. The first interview was conducted in Batanai RMC with a group of 7 local farmers. Although one of these farmers was an RMC member, the majority were not directly involved in natural resource sharing. A second interview was conducted with 12 farmers within the Chemwiro-Masawi RMC. In general, this group was more directly involved in resource sharing and community groups. This group included the secretary of the local RMC, the ward councillor, and several RMC members. Both groups were comprised almost exclusively of men. Finally, an interview was conducted with a member of the Forest Protection Unit (FPU) based within Mafungautsi Forest Reserve, who was familiar with the study areas. The researcher wrote a synopsis of the discussions the evening after each interview. In addition, a research assistant took notes during the exercise, thus providing two written accounts of each interview.

The aerial photo mosaics were subsequently scanned onto computer, imported into a Geographical Information Systems (GIS) and geo-referenced. Land use zones and other observations recorded during all three interviews were then digitised on top of the geo-referenced scanned images by reference to the original acetates. The section below gives a brief overview of the importance of GIS into which the scanned images were imported into.

5.1.9. Geographical Information Systems (GIS)

Geographical Information Systems (GIS) can be defined as a powerful set of tools for collecting, storing, retrieving at will, transforming and displaying spatial data from the real world for a particular set of purposes (Burough 1986). Cowen (1988) defines GIS as a decision support system involving the integration of spatially referenced data in a problem-solving environment. GIS is an interdisciplinary and multi-disciplinary tool. Despite being a technical tool it is important to put it in its social context as noted by Bruce Babbit

> we cannot become a cheerleader for a science that is disembodied from human values. The accumulation of data is meaningless unless it is underlain by a clear definition of our goals and our definitions about how we shall use and structure that science towards an informed, decision-making process (21 May 1996).

Geographical Information Systems has a number of applications in environmental and forestry planning which include, environmental monitoring, modelling, and management for land degradation, land evaluation, rural planning, landslides, desertification, water quality and quantity, plagues, air quality, weather and climate prediction. In forestry GIS can be used for management, planning, and optimising extraction and replanting. GIS can also be used for the analysis of demographic movements and developments.

GIS is an evolving tool, which has recently been used, in a participatory approach. Participatory GIS is an evolving approach in which more people are to be involved in the use of GIS. This includes its use for sustainable forest management. GIS is becoming a very powerful tool of analysis in the social sciences. It is an important tool for analysing spatially related data. The success of GIS as a tool will ultimately rest on whether it was used properly or not (Bourough 1986).

Within the field of GIS it has been realised that participation of the farmer at grass roots level has been a missing link in the application of GIS. What is signally absent in most public discussions of development are the ways in which the knowledge of the peoples being developed are ignored or treated as mere obstacles to rational progress (Hobart 1993). In South Africa GIS production process is undertaken with

concern for the competing discourses associated with post-apartheid social transformation in South Africa and in full appreciation that geographic information systems are social constructions (Weiner *et al.* 1995). In South Africa participatory GIS research is now being used. The participatory approach to GIS is what Obermeyer (1995) has called 'democratising GIS'. Participatory GIS was used to come up with forestry resource inventory in the communal land and Mafungautsi Forest. This was done through participatory mapping exercise using some aerial photographs showing trends in vegetation cover over the years.

The use of participatory GIS helped to demystify modern technology hence it improved dialogue with the local farmers. This is important as it can be used in negotiating powers to be devolved to them. In a number of instances the FCZ justified holding on to most powers on the basis that they had the "technical" know-how of how forests are managed. They forgot that most for the farmers have been living with the trees for the all their lives.

5.1.10. Historical aerial photography analysis

Aerial photo mosaics of the Batanai area of Mafungautsi and surrounding farmland were obtained for three years 1976, 1984, and 1996. Black and white aerial photographs (scale 1:50 000) were scanned onto computer as three images for each year and geo-referenced to Universal Transverse Mercator co-ordinates. This was achieved by taking control points from two sources, a 1996 panchromatic Spot satellite image and 1:50 000 scale topographic maps and applying a linear transformation to these points. The satellite image was not used as a basis for identifying vegetation because of its resolution and to ensure that remote sensing data sources were consistent across the years studied. Root Mean Square (RMS) errors were calculated for each scanned image based on the formula (Johnston 1998):

$$RMS = \sqrt{\{\Sigma\ [(x_i - X_i)^2 + (y_i - Y_i)^2] / n\}}$$

(Where x_i y_i are the true co-ordinates of the control points, X_i Y_i are the control point co-ordinates given by the transformation, and n is the number of control points used). The RMS error statistics for each image will be discussed in Chapter 8.

The researcher then digitised polygons over these photographs to delineate one of four main types of land cover: agricultural land, woodland/scrub, *vlei*, and forest as further explained in Chapter 8.

5.1.11. Key Informant Interviews

Key informant interviews were also an important source of information. These were interviews conducted with people who are knowledgeable about particular issues pertaining to Gokwe. These people who included ordinary villagers had knowledge about their area, traditional leaders who tend to have historical knowledge about their areas and chiefs, who in most cases are the gatekeepers of their communities. The other people interviewed included the Acting Chief Executive Officer of Gokwe South Rural District Council, Mr Mandibaya. Throughout the period of the research Gokwe South Rural District Council was rocked by corruption scandals which saw most of the employees working in an acting capacity due to the long legal battles which were going on with the suspended officials. This was worsened by the intervention of the war veterans who closed the RDC offices for a long period on allegations of corruption. Other people interviewed included the Campfire Co-ordinator, the acting Campfire Co-ordinator, the Poverty Alleviation Action Programme Officer, the Executive Officer Finance (EOF), Council Chairman, Chairman of the Conservation Subcommittee of the Gokwe South R.D.C., some councillors, ORAP group leaders, RMC members, Village Community Workers, ordinary farmers, FCZ staff at District, Provincial and Head Office level.

Some elders within the community such as Mr Musanika Ncube were also very helpful sources of information. Most of these interviews related to specific issues and in some cases it was based on the broader research topic. The Agritex office was also very helpful so much that we ended up exchanging notes with one officer who had a lot of interest of community management of natural resources. Individuals within the community, such as recent immigrants, Mr Muzenda, who was considered a "wise man" by the local people, had some interesting perspective on life in Gokwe. One needs to acknowledge that although these people were knowledgeable about certain issues, knowledge on its own is heavily tainted with personal values. One respondent lamented how the people of Mafungautsi were

"backward" as they did not want to use fertilisers and often left trees and stumps in their fields which would reduce their yield. This seems to be against the grain of agroforestry logic and the arguments by the local farmers who felt that Kalahari sands were not suitable for the use of artificial fertilisers. They argued that cattle manure was more effective as it helped to bind the loose grains of sand, a feat that could not be achieved through the use of artificial fertilisers which would quickly be lost through leaching. This research method was helpful in that it provided insights into issues, which would be followed up later using other methods such as the Focused Group Discussion.

5.1.12. Archival Research

The National Archives of Zimbabwe proved to be a very important source of the background of the Mafungautsi area of Gokwe. Through the various documents in the National Archives in Harare the researcher was able to get an overview of the perception of the colonial government and its inspiration towards the development of Gokwe. National archives have all the records that were produced by government, non-government institutions and individuals in Zimbabwe. These records include the Native Commissioner's reports, which lay out in detail the government policy at the local level and how it impacted on the local communities (in the then Native areas) in the communal lands. The Native Commissioners' reports have to be read with caution due to the fact that these tended to be perceptions of a Native Commissioner. In a way, the report may be a reflection of the personality of the Commissioner and his views towards the African communities. This raises lots of debate on the knowledge creation - whose knowledge? Stokes (1966) further illustrates this issue by citing Harding

> Truly the pen is mightier than the sword, and in the hands of experts…achieved more in Barotseland than the most potent lethal weapon in many of our less fortunate dependencies (Harding in Stokes 1966: 261).

Issues covered also included the role of local leaders such as chiefs and headmen who seem to have worked closely with the Native Commissioners. Reports into the conservation, agricultural and general development were analysed at a broad national level before zeroing in on Gokwe District. The district boundaries have been shifting since the 1890s and the archival research took note of that. These helped to shape an understanding of why the Mafungautsi area is what it is today - a

product of amongst others, colonial policy towards tsetse eradication, the designation of forest reserves and the forced evictions from areas which were designated as commercial farming land. These records also helped understand why Gokwe has a very high number of immigrants through the analysis of the communication of the Native Commissioners and how people were moved from areas, which had been designated for settler farmers mainly after the Second World War. The Centre for African Studies at the University of Edinburgh also proved to have lots of golden oldies in its library. These included parliamentary debates and government documents. This special collection also had material that was also available in the National Archives in Harare. The Special Collections library at the University of Zimbabwe also had important documents on Gokwe.

Archives are an important source of information as they include documents and reports that were formally classified. These are likely to shed light on the motivation of particular policies in a given area. The theme of power struggle and dynamics of forestry resource management is likely to be discerned from such reports. The power struggle between the government and the FCZ and the community are likely to be discerned from some of these reports and documents. Central issues to be considered were the power struggles and dynamics that have been played out nation-wide in terms of access to land. This method is aimed at assessing how the levels of power and decision making have impacted on the conservation of forest reserves in Zimbabwe, and specifically in Mafungautsi.

5.1.13. Participant Observation

This is qualitative research conducted through a very long contact with the field or life situation, which is reflective of everyday life of individuals, groups, societies, and organisations. The researcher attempts to capture data on the perceptions of local actors 'from the inside' (Miles & Huberman 1994).

This is the research method in anthropology that was used by researchers such as Malinowski amongst the Trobriand Islanders. The Chicago School of Sociology has helped in the advancement of this research approach (Robson 1993).

> The demand for direct observation by the researcher, instead of relying on informants reports, derives from the notion of analytical objectivity in anthropology" Ellen 1984: 25. A key feature of participant observation is the fact that the observer becomes some kind of a member of the observed (Robson 1993: 193).

This form of research has also been referred to as case study research. In some instances the researcher has to be a complete participant where the researcher conceals his motives. In other instances the participant-as-observer where the researcher makes clear his motive to the community being researched. The latter is the approach that was used in Mafungautsi.

I embarked on the field research within the two sample Resource Management Committee areas (RMCs). At least two months were spent living with community households and observing their day to day activities. My role was made clear to the community being researched. More disjointed periods were spent in the research areas. Whilst this may result in people changing their behaviour once they know that they are being observed, what has commonly been called the "Hawthorne effect", the researcher is reasonably convinced that given the later political climate in the rural areas of Zimbabwe it would have been dangerous for a 'stranger' to keep on staying in the rural communities without raising suspicion of the ruling ZANU (PF) party officials. However at the beginning of the research political victimisation was not prevalent. It only picked up after the referendum of February 2000 which saw the government loosing in its constitutional referendum. In one household there were attempts to mislead the researcher but they later abandoned this course as the people gained more confidence and trust of the research agenda. This was when people opened up and started telling the truth. In one instance, one household in 2001 gave the researcher lunch of *sadza* (some thick maize meal porridge which is the staple food in Zimbabwe) which was served with buck meat poached in Mafungautsi Forest. The household head made it clear that he was not open with me at the beginning because they felt that I was working for the FCZ .

This is of paramount importance as this ensures that one captures the dynamics occurring within a given community. This also involves direct or indirect participation in everyday activities within the community. Use of field notes and

observations were also made and at times mundane issues where also noted so that they would then be analysed in the context of an analytical framework (Miles & Huberman 1994). This was the key method of the research in Mafungautsi, which saw the researcher attending events and meetings, which at face value, would seem remotely connected to forestry issues. The piles and piles of field notes would then be analysed to look at the various actors and institutions in the case study areas and how at times the way they act is occasioned by various forces which might have nothing to do with forestry issues. This strategy was also suitable in ensuring that the accountability mechanism area understood and gave an indication of the power dynamics and counter powers from various perspectives. This then informed the researcher to appreciate the interrelationships with other powers and how actors would negotiate their powers in the context of decentralised forest management in the co-management context. Field notes even helped to capture dynamics such as the low tone discussions/whispers about people's main concerns which do not get minuted or at times heard by all the people. Lobbying before a meeting and the different camps or divisions are not captured and motives for voting in a particular manner has to be analysed and will help understand why the people are behaving in the way they are doing.

This method also has its shortcomings in that in the research area there were power contests between one headman and a councillor. At one point the struggle became serious and involved forging of resignation letters allegedly written by the headman. There were also contests and appeals for the village head position for the Matashu village. Interviewing one party would be used as an endorsement by the university (thereby Government of Zimbabwe) of their legitimacy. The researcher clearly explained this to all the leaders and both opposing views were sought. Some leaders intentionally misrepresented the research in order to advance their own objectives. At a meeting in Chemwiro-Masawi one RMC member told the people that he had invited the researcher to carry out research in his area since the researcher had agreed to bring in donors to build the school. The researcher clearly refuted this at that meeting.

5.1.14. Meetings Attendance

In order to have a clear understanding of the power dynamics, powers decentralised, the actors involved, their stake, interests and the various accounting mechanism it was therefore important that the researcher and the research assistants had to attend all meetings within the study areas. Dynamics in natural resource management tend to be related to dynamics in other arenas, therefore, the researcher attended meetings within the research sites and at times even meetings outside the research sites but which were dealing with issues impacting on the natural resources in the research areas. The meetings attended were at various levels. The Project Review Committee (PRC) comprising of the FCZ's senior management, CIDA and senior civil servants in related fields and the University of Zimbabwe kindly allowed the researcher to attend their quarterly review meetings and also receive the official minutes of their meetings. The FCZ invited the researcher to participate in a number of their workshops and seminars. The researcher and the research assistants also made notes of all the meetings without participating in the proceedings of the meeting. However in some instances, the opinion of the researcher was asked for. This particular strategy had to be abandoned towards the end of the research as some ZANU (PF) party members began to question why the researcher was now attending developmental and party business meetings instead of focusing on the RMC business only. However all traditional leaders were still welcoming me to their 'courts' to hear the traditional judiciary system being practised on Thursdays and Sundays.

Minutes of the RMC meetings were also used to assess how issues were discussed. The researcher and the research assistants also made their own verbatim minutes, which were then to be compared with the final 'official' minutes which were written by the FCZ. This was necessitated after the realisation that 'official' minutes tended to be edited minutes which eliminated unfavourable and controversial subjects. The fact that these minutes were written by the FCZ representative tended to portray the official position. The official minutes were then typed and kept in files at the FCZ offices at Gokwe centre.

Meetings alone do not yield important results. Meetings also proved to be a good opportunity to identify follow-up issues after the meeting. It was also a good

opportunity of identifying key informers. It was also an opportunity to attend some follow-up social events.

5.1.15. Questionnaire Survey

A questionnaire survey involves the asking of pre-set questions to a respondent. This is what Chambers refers to as the "Quick and Dirty" research method (Chambers 1983). Prior to conducting the questionnaire survey research assistants who had taken part in the early reconnaissance survey were further trained using the previous exercise as a benchmark. The first two weeks were used for pre-testing the survey instrument. The training session in Gokwe included the translation of the questionnaire into the local languages of Shona and Ndebele, how to approach the households, introducing the research objectives, whom to interview and sampling procedures. Mock interview sessions were then later followed up with practical trials in the field with an opportunity to review the field experiences. A questionnaire survey was conducted in both Batanai and Chemwiro-Masawi. One hundred and nineteen questionnaires were conducted in Batanai with one hundred and twenty-one questionnaires being conducted in Chemwiro-Masawi RMC. The questionnaire covered issues such as the ethnicity, place of birth, to help determine issues such as migration. The questionnaire also covered issues such as resource ownership, use of forestry resources and institutional analysis and ranking. The questionnaire was conducted to adults within the household. The main targets for the questionnaire were the household heads. Children were interviewed only if they were above 21 and the head of the household was absent on the second visit. Most people interviewed were the husbands or their wives. These households were randomly selected within the RMC.

The field research assistants conducted the field data collection for the questionnaires after a three-day training period in Gokwe. The researcher carried out the field supervision and quality control. Evenings and early mornings were used to monitor the quality of data collected so that mistakes and problems were detected quickly. This was also an opportunity for the research assistants to point out at challenges emerging in the field. This proved to be a very useful exercise as it helped to detect problems at an early stage. Quality control remained a key component in the whole data collection exercise. The questionnaire had both open

ended and closed questions. Once all the 240 questionnaires were filled in, they were then entered into the Statistical Package for Social Scientists (SPSS) at the University of Zimbabwe. This process was useful in that soon after the analysis of data using SPSS it was then possible to go back into the field carrying out key informant interviews as a follow-up to the issues emerging from the questionnaire findings. The questionnaire instrument was mainly pre-coded except for the sections where the respondents were supposed to give their own opinion. Some of these open-ended questions were later coded using the responses coming from the field results. The questionnaire instrument used in this study is attached as annex 1.

It is important to note from the beginning that this method like any other method has its disadvantages but when used to complement other methods it helps in cross-checking PRA results. This probably explains why it is still one of the most popular methods used in research work (Robson 1993).

5.1.16. Secondary Sources

Secondary sources of data proved to be very useful for this study. The research made use of the valuable information in libraries at various sites. The University of Zimbabwe and its departmental libraries such as the Centre for Applied Social Sciences (CASS), Institute of Environmental studies (IES), Institute of Development Studies (IDS) and the Map Library were valuable sources of information. Other libraries in Zimbabwe used included the Agricultural Rural Development Authority (ARDA), Department of Physical Planning (DPP), IUCN and the Zimbabwe Environmental Research Organisation (ZERO) Resource Centre. The Edinburgh University library was very useful. The National Library of Scotland proved to be a good source of material on Africa and Zimbabwe. One other library that was used for a very short period of time was the Centre for Basic Research, in Kampala, Uganda. The electronic age has also made access to information fairly quicker and more affordable. At Edinburgh University I was able to access a number of papers and journals some of which were accessed through databases on the internet. This also enabled me to access papers presented at various conferences, which were published on the internet. Conferences and workshops were also an important source of some of my references. These helped shape and modify the way I viewed the issue of decentralisation within the forestry sector. Conferences and Workshops

organised by the World Resources Institute (WRI)'s Institutions and Governance Programme helped me to discuss and debate issues on decentralisation within the forestry sector. This also drew researchers from various parts of Africa, which enabled me to share and have a critical analysis of decentralisation within the forestry sector in Zimbabwe.

5.1.17. Other secondary data sources

Several routinely collected government data sets were used to cross-check the findings from the interviews. This included 1981-1993 crop yield data for Gokwe communal land as collected by agricultural extension services (Agritex/USAID FEWS 2001), precipitation records for the meteorological station at Gokwe, and the number of poaching arrests in Mafungautsi made by the FPU. The Zimbabwe Republic Police keep the records on arrests. After the February 2000 Constitutional referendum in Zimbabwe, it became difficult to get any records from the police as they were under instructions not to give out any information which could be used against the government. The above methods were used in order to assess the power dynamics within the devolved forestry management in Mafungautsi.

5.2. Conclusion

The use of the different research methods was an important way of triangulating the findings from Mafungautsi. All research methods have their own inherent weaknesses and strengths. Through the use of different methods it was possible to assess decentralisation through co-management in Mafungautsi. The fact that field based research assistants were also residents of the villages meant that they were in a better position to know more about their area. Issues such as who wields power can at times be derived through observing those who have power and how they use and exercise it. This is why it proved to be highly informative to attend not only co-management meetings but also all other meetings as the power dynamics in co-management within the co-management arena influence and are also influenced by the political economy at a local and broader level. Having looked at how the research was conducted through the use of various research techniques and their relevance, the next chapter gives a detailed background of the research area.

Chapter Six

Background to Gokwe

6.0. Introduction

This chapter gives an overview of the Mafungautsi Forest Reserve, which is in the north-western part of Zimbabwe. It will look at land use and tenure in Gokwe, the rainfall, topography, soils, vegetation, population characteristics, energy and the Gokwe South RDC administrative structure. It will conclude by looking at an overview of the case study sites. Mafungautsi is one of the 21 gazetted forests in Zimbabwe, which is located in Gokwe South Rural District Council area, which lies in the north-western part of the Midlands Province. It is bordered by Matabeleland North to its south and west, Gokwe north to its North, Mashonaland West province to the East, and Zivagwe Rural District Council to the South.

6.1. Background to Gokwe

In the pre-1980's Gokwe was largely viewed as part of the Sebungwe region. This region consisted of Omay, Kariba, Matusadona, Sanyati, Binga and Chizarira areas. Common features for the Sebungwe region were its remoteness, lack of basic infrastructure, and sparse population distribution (Gokwe delineation Report 1963; Worby 1992; GSRMP 1994; Nyambara 2002). The Sebungwe area is the only district which the Morris-Carter Commission of 1925 regarded as unworthy of first hand inspection and only 3% of its land was designated for European occupation. The next lowest percentage allocated to Europeans was 25% (Worby 1992). Worby (1992) further notes that the first mission school in Gokwe was established as late as 1963 yet other mission schools in Zimbabwe go back to the late 1890s and early 1900s (*cf.* Worby 1992; Nyambara 2002). Gokwe South, alongside other districts such as Gokwe North, Binga, Centenary, Guruve, Hurungwe, Kariba, Mount Darwin, Mudzi and Rushinga experienced some form of spontaneous settlements after the eradication of the tsetse fly in the middle parts of the Zambezi Valley in the post independence era[72] (Hoare & Du Toit 1999; Chimhou 2002).

[72] It is equally important to note that this should not be construed as downplaying the role of migration into such frontier areas. For Gokwe *cf.* Worby 1992; Nyambara 1999.

Gokwe South RDC came into existence due to the "Amalgamation" Act, the Rural District Councils Act of 1988, as implemented from July 1993. The Rural District Councils Act of 1988 sought to merge the District Councils covering communal lands, and the Rural Councils covering the commercial farming areas. In contrast, Gokwe South was created not due to the amalgamation in the literal sense, but was due to the splitting of Gokwe-Cheziya District Council into Gokwe North and South RDCs. Zimbabwe is divided into 55 Rural District Councils, which are the local authorities in the communal and commercial farming areas (see Figure 5 for the location of Gokwe South RDC). The other local authorities administer the urban areas.

Gokwe South Rural District Council covers a total area of 11 477.41km^2. Development efforts in the area concentrated more on opening up the area for human habitation, especially through the eradication of tsetse and infrastructure provision[73] (Gokwe Delineation Report 1963). The period after 1980 saw the provision of infrastructure on a large scale like schools, roads and water facilities. This was made necessary by the rapid population growth experienced in the area due to both migration and natural increase. Provision of infrastructural services has also been closely linked to the cultivation of cotton in Gokwe (Worby 1992; Nyambara 1999, 2002). Nyaradza area, in Gokwe, used to house political detainees who were restricted from interacting with the ordinary people. Due to the prevalence of tsetse fly and the subsequent lack of road infrastructure, it was also seen as a good area to operate from by the liberation fighters in the pre-1980 independence guerrilla struggle.

Since Gokwe South RDC is in the Midlands Province it is a meeting point for the Shona, who are mainly in the Mashonaland area, and the Ndebele, who are concentrated in the Matebeleland area. Gokwe suffered in both the pre and post-independence periods (*cf.* Alexander, McGregor & Ranger 2000). The post independence suffering was mainly as a result of the outbreak of the "dissident" fighting which was mainly concentrated in Matebeleland and the Midlands. This was the time that the government of Zimbabwe was trying to enforce a "one party

state" in line with its pronounced socialist principles. Residents in the Mafungautsi Forest were evicted in 1985 on the pretext that they were supporting dissidents. This was after the FCZ tractor and buildings at Lutope Camp were allegedly burnt down by the "dissidents". This resulted in a lot of suffering and loss of lives. Some chiefs, including Njelele were incarcerated as they were accused of supporting the "dissidents." The general perception in Matebelaland and the Midlands is that development was then used as a political tool, with people in the areas affected by dissidents being punished through withdrawal of state funding. Various reasons were cited including the fact that civil servants were not safe to work in such areas (*cf.* Alexander, McGregor & Ranger 2000).

Having suffered in the pre-independence liberation struggle, in the post independence "dissident" era, Gokwe South was also worst affected by the political violence in the run up to the 2000 parliamentary elections. This violence dragged on up to the 2002 Presidential elections. Parliamentary seats for both Gokwe North and South were nullified due to the amount of violence and deaths experienced during the election period.

6.2. Land uses and Tenure

Gokwe South Rural District has three main tenure types, which are: communal, small-scale commercial farming, and state (forestry land and wild life game reserves) which are shown by Table 4 below. Tenure regimes in Zimbabwe are closely related to the availability of natural resources including forestry.

Table 4: Land uses in Gokwe

Land use	Area square km	Percentage	Tenure
Game reserve	1718	15%	State
S.C.C.F.A	554	5%	Private
Communal	8138.41	71%	Communal
Forestry	1067	9%	State
TOTALS	**11477.41**	**100%**	

Source: Gokwe South Rural Master Plan 1994

[73] The European Union has significantly contributed to the eradication of tsetse fly in Zimbabwe. Zimbabwe also has a beef quota to the European Union Market.

6.2.1. Communal Land

The largest percentage of the land area in Gokwe is used for communal farming (71% as shown in Table 4). Crop farming is the main agricultural activity with about 45 percent to 50 percent of cultivable land being used for crop cultivation (Gokwe South Rural Master Plan {GSRMP} 1994).

A number of the wards in Gokwe South District are now densely populated due to in-migration. Wards such as Ndhlalambi II, Chisina I, Nemangwe IV, Ngomeni, Njelele I and Njelele III have population densities which varies from 33 to 40 people per square kilometre. The problem of dense population and the shortage of grazing has been worsened by the absence of planned settlements, natural increase and in-migration since in these wards the agricultural potential is quite good, attracting a big number of people in search of land to resettle[74] (Gokwe South Rural Master Plan 1994). An assessment of people in need of resettlement throughout the district reflects that a total of 1650 families registered to be resettled. Gokwe was not considered for the first post independence resettlement phase as it was considered as having abundant land. The policy to resettle communal farmers within their respective districts disadvantages Gokwe South residents, as there are no large-scale commercial farms within Gokwe South District. This has meant that there is more demand for land as compared with other districts which have commercial farms for resettlement. The fragile nature of the Kalahari sands in most parts of Gokwe South RDC means that each household needs a bigger hectarage in order to derive a livelihood from farming. The communal lands in which the majority of black farmers reside were set aside in a process, which began in 1898. These areas were further consolidated through the Land Apportionment Act of 1930 and the Land Husbandry Act of 1951. The post independence Land resettlement programmes have tried to address this racial imbalance without much success (Moyo 1986, 2000; Marongwe 2002). In the year 2000 the government began promoting land invasions, in terms of the "Fast Track Land Resettlement Programme."

[74] This seemed to be a widely held belief that Gokwe was an area ready for opening up. However due to the influx of immigrants, both forced through the Native Land Husbandry Act of 1951 and those who moved on their own accord, land shortages are now being experienced in Gokwe. Land ownership is also highly skewed with some people now relying on 'land rentals' from those with

6.2.2. Small Scale Commercial Farming Area

This zone is found in the south-eastern part of the district (Chemagora area) and lies in Natural Region III. Unlike in the communal farming area, individuals can own land in this area. Population densities of 1.63 persons per Square kilometre (km^2) are much lower than in the communal lands, which are as high as 40 people per km^2. These areas have more secure tenure as compared to their counterparts in the communal lands. Security of tenure in the small-scale commercial farming areas is through title deeds, which can be used as collateral in raising capital. In terms of forestry produce, any commercial logging proceeds will accrue to the farmer after deducting the FCZ's supervision fees.

Chemagora area also has an abundance of indigenous timber with Mukwa (*Pterocarpus angolensis*) in particular being exploited on commercial lines by private companies under the supervision of FCZ. The revenue from the exploitation of timber on private property accrues to the individual farmers. The farms also supply firewood to the Growth Point and areas outside the district. Some enterprising individuals could be seen along the Gokwe-Kwekwe road selling firewood to the users of this highway.

Small Scale Commercial farming areas were set up by the colonial government as a way of relieving pressure from communal land. This was also seen as a pre-emptive strategy for containing the middle class black farmers' demand for land. These were then called the African Purchase Areas (APA). Most of them were in marginal agro-ecological regions where large-scale commercial farming was considered uneconomic (Moyo 1986). This was also meant to ensure that these new farmers would not compete with large-scale commercial farmers. Legislation such as the Maize Control Act of 1931 was passed so as to stifle competition from black farmers.

6.2.3. Forest Area

This area is mainly covered by Mafungautsi Forest and is 82 100 hectares in extent. It is situated in the southern part of the district and is administered by the FCZ. It is

abundant land (Interviews with Mr Muzenda 1999, Nyambara 1999). In 2000 one Gokwe resident offered the researcher land for either purchase or rental.

an area where controlled exploitation of timber on a commercial basis occurs and is a central watershed for several rivers in Gokwe South. The forest area also supports a considerably big population of wildlife and offers opportunities for grazing of cattle for the people in the surrounding wards. In the past the local people used to get salt in the Mafungautsi plateau (Beach 1977, 1984; Nyambara 2002). Currently, there is no commercial exploitation of timber within the Mafungautsi Forest Reserve. The people of Mafungautsi have always contested the designation of Mafungautsi. Chiefs such as Njelele argued that their people used to stay in the gazetted area. They felt that the government stole their land. Headman Ndhlalambi echoed the same views. In Nyaje people were also bitter as they argued that not only did they lose their land in 1954, but the FCZ further carved off their fields when they degazetted the area for Batanai and simultaneously gazetted parts of Nyaje in order to meet the legal requirements for de-gazetting reserved forests. This highly contested forest is now the area where co-management has been introduced with communities surrounding the forest reserve.

6.3. Rainfall

Gokwe South RDC lies in natural regions III and IV. The rainfall pattern in the district is in two broad categories: areas which receive rainfall ranging between 700-800 millimetres (mm) and those areas receiving between 600-700 mm. Areas in the eastern and southern parts of the district generally receive more rainfall than areas in the northern parts and western parts of the district. Much of the rainfall is accounted for by infrequent heavy falls hence it is not very reliable. Some parts of the district are prone to droughts. This limits the range of crops peasants can grow since dry land farming is the dominant method of crop cultivation. It is often argued that it was due to the low rainfall and the perceived inhospitable climate that the term "*Shangwe*" which has often been used to describe the indigenous people of Gokwe was first coined. The *Shangwe* are possibly part of the Shona Dynasties who moved west and south-west of the Mutapa State between the 16th and 18th Centuries to areas such as Hurungwe and Mafungautsi plateau (Beach 1984; Interview with Chief Njelele 2000). The name is said to have connotations of famine and misery coming from the Shona word *Shangwa* (*cf.* Nyambara 2002). Some point out that it was derived from *Abashankwe* meaning 'people who live alone', a description that is thought to have originated from Rozvi Chiefs. The Shangwe were renowned for

trade in the "Inyoka" tobacco industry as well as trade in hoes (Beach 1984 *cf.* Nyambara 2002). It was for its isolated nature that Gokwe was used as a detention centre for political activists in the 1960s. In Batanai area, the area close to Nyaradza[75] Shopping Centre used to be one of the detention centres - meant to keep political activists away from contact with other "innocent" citizens.

6.4. Topography

Gokwe South district lies between 600-1200 metres (m) above sea level. The highest part of the district is in the southern section of the district Mafungautsi forest on the Mafungautsi plateau being 1 324 m above sea level. Generally the land drops gently in altitude as we go northwards and westwards except in the North where the district ends with a steep descend.

The Mafungautsi Plateau is a watershed as it is the source of the Lutope, Sengwa, Mbumbusi and Ngondoma rivers. These rivers flow into the Zambezi River on which the Kariba dam, a major source for hydroelectric power is housed. It was because of the need to protect the catchment area for the Zambezi River that the Mafungautsi was gazetted. The electricity generated from Kariba Dam supplies Zambia and Zimbabwe.

6.5. Soils

There are varied types of soils in Gokwe South. These types of soil are directly related to the underlying parent rock from which they were derived. All areas below the escarpment have heavy soils and rainfall pattern is low and erratic. Crops grown include cotton and sunflower. Maize is grown as a staple food although the weather is not suitable and there is no access to irrigation. These soils have serious implications for the agricultural activities (GSRMP 1994). The Kalahari soils are quickly leached resulting in poor yields after a few seasons of opening up virgin land, even with the help of artificial fertilisers. This has resulted in the demand for land within the Mafungautsi forest estate, an area perceived to be ready for cultivation.

[75] Nyaradza, according to Mr Musanika-Ncube, used to be a big forest and due to its sheer size people walking across it would talk and exhaust all stories before crossing the forest - hence the name, which means "to silence" (Interview of 1 September 2000).

6.6. Vegetation

Where not cleared for cultivation, the vegetation is predominantly savanna woodland of a type and density related to the underlying rock. The terrain is characterised by an open tree savanna of acacia species with muunze *(Brachystegia glaucescens)* flourishing on the ridges of Mafungautsi and Mopane *(Colophospermum mopane)* in the less well drained areas, the latter becoming more abundant at lower altitudes in the north of Mafungautsi. The elevated country underlain by Deweras and Lomagundi rocks has a well developed mixed savanna woodland consisting of dominant Mupfuti (*Brachystegia Boehmii*) lesser amounts of Munondo (*Julbernadia globiflora*) and patches of Musasa (*Brachystegia spiciformis*). The Karoo sandstones of the Mafungautsi plateau have a similar but more open assemblage characterised by stands of palms (*Hypaene and Phoenix spp*) along spring horizons. A grassland of *Hyparrhernia spp.* with only stunted thorn bushes is found on the basalt flats upon the top of the plateau, in contrast to the mixed forest of well-grown musasa, munondo, Zimbabwean teak (*Baikiaea plurijuga*) mukwa (*Pterocarpus angolensis*) and mobola plum (*Parinari curatellifolia*) that is developed on the Kalahari sand. The recent deposits are characterised by a well grown mixed woodland of mupfuti, mopane, patches of combretum thicket and large baobabs (*Adansonia digitata*)

6.7. Population Characteristics

6.7.1. Population Size

The administrative district of Gokwe was divided on 1 July 1993 to form two new districts, Gokwe North and Gokwe South. The last reliable population data were collected during 1992[76] census, prior to the division. The population of the whole district of Gokwe at the time of census was 403,653 and for Gokwe South as from ward population statistics was 239,704 (CSO 1994). This represents approximately 18,4 percent of the Midlands Province total population, and about 2 percent of the national population.

6.7.2. Population Distribution and Density

The population of Gokwe South is distributed as shown in Table 5.

Table 5: Population Distribution according to Tenure

Land Tenure	Population	Percentage of Total
Communal Wards	231 124	(96.4%)
Gokwe Growth Point	7 418	(3.1%)
Chemagora SSCF Area	902	(0.4%)
Chirisa Safari Area.	260	(0.1%)
Total Gokwe South District	239,704	(100%)

Population distribution and densities by wards indicate high population densities. In the communal wards, population density ranges from 13 inhabitants per square kilometre in Huchu Ward, to 40 per square kilometre in Njelele 3 and Nemangwe 4. Densities are much lower in the adjacent areas of Chemagora Small Scale Commercial Area (1.63 per square kilometre), and Chirisa Safari Area (0.15 per square kilometre). Mafungautsi Forest itself is not accounted for, as the people are not allowed to stay in the forest except for the FPU manning the Lutope Camp.

The total population, 1982, for the Cheziya Gokwe District Council area (i.e. communal wards including Gokwe Centre and Chemagora) was 229,382. Copper Queen, then in Chitenderano Rural Council Area, had a population of 2,071. Therefore the total population of the area now covered by Gokwe North and South RDC's was 231,453 in 1982. The 1992 population for Gokwe North and South RDC areas was 403,653. This implies a population growth rate of 5.72 % per annum, significantly higher than the rate for the nation of 3.13%. There is no doubt that there was significant in-migration to Gokwe District during the 1980's. Nevertheless it is clear that the rate of natural increase (i.e. the difference between fertility and mortality levels, and excluding migration) has been considerable (GSRMP 1994).

[76] The Herald of 4 December 2002 reported that the population of Zimbabwe is now 11.6 million, but the provincial profile summaries are not yet published.

In 1986 the CSO carried out a series of population projections for Zimbabwe to the year 2032 (CSO 1986). These were based upon the 1982 Census, assumptions about future fertility and mortality levels, and assumptions about the impact of health and education programmes upon population growth. Three scenarios were provided: a high variant, a medium variant and a low variant. All three projections were under-estimates, although the high variant is the most accurate: it projected a 1992 national population of 9,978,869 compared to an actual population of 10.4 million; and an inter-censal growth rate of 2.88% p.a. compared to an actual growth rate of 3.13%. Gokwe South's population growth rate is 5.7% per annum, which is above the national average of 3.13. This could be attributed to the fact that Gokwe South has been experiencing net immigration since the late 1950s (Mehlo 1970; Worby 1994; Matose 1994; Nyambara 1999).

6.7.3. Household Size

Gokwe South has high household sizes. In communal wards population per household ranges from 5.45 in Chisina 3 to 6.45 in Jahana with a mean of 5.97 per household, compared to 5 per household for the Province as a whole. Mean hectares per household in communal wards range from 15.56 in Ndhlalambi 2 to 43.64 in Huchu, with a mean across communal wards of 23.10. These figures should be treated with some caution if one takes into account the fact that they were computed after the 1992 census and a number of changes are bound to have taken place. Secondly, the land areas may have changed, as there have been some recent ward boundary changes. Thirdly, there are undoubtedly significant variations in land holdings both within and across wards. The mean figure of 28.61 hectares per household is distorted by the inclusion of Chirisa Safari Area, a large area with very few households. Household sizes have implications for new households and the demand for land (CSO).

6.8. Energy Sources

The major source of household energy in Gokwe South district is wood fuel. Over 98 percent of households obtain their energy from fuel wood (GSRMP 1994). This has implications on the use of forests and woodlands in Gokwe. Mafungautsi Forest is seen as one of the main sources of firewood for domestic energy purposes. Its proximity to the Gokwe Centre provides a ready market for firewood. Gokwe South

District is predominantly rural which explains its high dependence on firewood as compared to the rest of the Midlands Province. This has implications on the demand for forestry products from the Mafungautsi under the co-management arrangement (CSO 1994). This does not automatically imply that firewood use is the main cause of tree loss in Mafungautsi.

6.9. Timber exploitation

Gokwe South District is one of few areas where significant stands of indigenous hardwood remain. Commercial species include mukwa (*Pterocarpus angolensis*), mukamba, or pod mahogany (*Afzelia quanzensis*), mukusi or teak (*Baikiaea plurijuga),* and mugaranyenze (*Albizia antunesiana*). There were two main timber operations in the district, both involving timber companies who have been awarded concessions, on a competitive basis, to cut timber. The first involves exploitation of timber in the Mafungautsi Forest Area, directly managed and supervised by the FCZ, with royalties paid to the FCZ. In 1991 the volume of timber taken from Mafungautsi was in the region of 4,000 cubic metres generating some $290,000 in royalties. Currently, exploitation of indigenous timber in Mafungautsi is suspended.

The second involves timber exploitation in the communal lands, particularly in the Mbungu area in the extreme south west of the District and, more recently, in Svisvi and Chemwiro-Masawi areas. This is managed by the RDC with advice and guidance from the FCZ, with royalties going to the RDC. A maximum of 4 800 cubic metres is allowed to be taken from the communal lands, generating some royalties for the local authority.

The exploitation is, in theory, strictly controlled and the timber companies are limited in the volume of timber they can extract. However, it is very difficult in practice to supervise the timber companies all of the time and the local authority and FCZ have to rely, to an extent, upon the good will of the companies involved. By its own admission, the company working in the communal land has exceeded its quota and is not supervised effectively by the FCZ (GSRMP 1994). Timber revenue will be a major source of contest between the Gokwe South RDC and the local farmers.

6.10. Administration

Gokwe is administered in terms of the Rural District Councils Act of 1988 (*cf.* Figure 4 Decentralised structure). Gokwe South is further divided into 30 wards with each ward being represented by a councillor. The Full Council meeting of the 30 councillors makes policy decisions pertaining to the district. For efficient administration the councillors are further divided into committees. Currently in Gokwe South RDC the following seven committees exist,

- Finance
- Roads and Works
- Area Committee for Gokwe Centre[77]
- Social Services
- Human Resources
- Administration and
- Natural Resources, Conservation and Planning Committee

The Executive on the other hand, headed by the Chief Executive Officer is the technical side/expertise which implements decisions made by the councillors and also advises the councillors on technical issues. The line ministry representatives at district level also provide technical support to the RDC in their various fields mainly through the District Development Committee. The line ministry representatives at district level are however accountable to their line ministries at the provincial level or head office level in Harare. The Gokwe South RDC can not demand their input if their line ministry at head office has other priorities. The next section gives an overview of the case study sites.

6.11. An overview of the Case Study Sites

The case studies are two Resource Management Committee (RMC) areas neighbouring the Mafungautsi Forest as previously shown in Figure 5. The research sites are Batanai and Chemwiro-Masawi.

Batanai RMC is in Ndhlalambi Ward 1, which is under the Nemangwe Chieftainship. Ndhlalambi is a son-in-law to Chief Nemangwe. Batanai RMC area

[77] This committee will be disbanded soon with the designation of Gokwe Centre as a Town, which will see the establishment of a Town Board to run the affairs of the town centre.

corresponds to a VIDCO comprising of three traditional villages. The VIDCO according to the 1984 Prime Minister's directive was composed of about 1 000 people in a rural area. This resulted in a number of traditional villages being merged to come up with the VIDCOs thereby creating new authorities. The main aim of this new institution was to undermine the traditional institutions that were perceived to have collaborated with the colonial government (Makumbe 1998). The three traditional villages comprising the Batanai RMC are Mafa, Maruta and Matashu. The total population for the Batanai RMC is 1 797 people. Batanai area is a former forest area, which was de-gazetted in 1972 in order to accommodate people being moved from the gazetted forest. Due to the gazetting of the Mafungautsi Forest in 1954 the people of Batanai were moved to Chief Nemangwe's jurisdiction. Prior to the designation of the forest reserve they were under Chief Njelele. Such forest demarcations did not take cognisance of the traditional boundaries alongside land re-organisation and land use planning under the Native Land Husbandry Act of 1951 (Holleman 1969; Drinkwater 1989). CSO statistics (1992) show that Ndhlalambi Ward 1 in which Batanai VIDCO is found, covers an area of 405.63 square kilometres with a total ward population of 12 197 and a population density of 30.07 people per square kilometre. The average household size is 5.95 people with an average land holding unit of 19.78 hectares per household. Ndhlalambi Ward 1 has a total of 9 437 cattle, 3194 goats, 74 sheep, 969 donkeys. Batanai RMC is in natural region 3.

Chemwiro-Masawi is an older settlement as compared to the Batanai RMC area. The location of Chemwiro-Masawi is shown in Figure 5. Chemwiro-Masawi is an RMC under Chief Njelele. It is in Njelele Ward 3, which is at times also referred to as ward 3. Most of the people in this ward are the original *Shangwe* people under the Chieftainship of Njelele due to the reference of the Korekore of Neshangwe area. Chief Njelele is one of the early settlers into this area when they migrated from Guruuswa in the 16th Century (Chief Njelele *Personal Communication*). The original settlers are often referred to as the *Shangwe* people - a derogatory term, which is mainly used by the immigrants (*cf.* Worby 1992, Alexander & McGregor 1997). This myth of backward *Shangwe* people in Gokwe was further entrenched by the colonial native commissioners (*cf.* Native Commissioner's Reports 1948/1949). The *Shangwe* who are the early settlers of Gokwe found themselves comprising the

minority due to the influx of immigrants from other parts of Zimbabwe. The "Shangwe" in turn called the immigrants the "Madherukas," which meant undomesticated animals or sounded like the noise made by government lorries that dumped them in Gokwe (Worby 1992; Nyambara 2002). Nyambara (2001) notes that between 10 000 and 12 000 people forcibly evicted from Rhodesdale that had been designated a Crown Land to accommodate white servicemen who had served in the Second World War of 1939 to 1945. The evicted people were settled in Gokwe or Sanyati. Chemwiro-Masawi lies along the main Gokwe-Kwekwe road.

Chemwiro-Masawi RMC is made up of two VIDCOS, which are Chemwiro and Masawi. It is slightly less densely populated than Batanai with a total of 1 500 people. The villages in Masawi VIDCO are Cheza, Mandiya and Mancuma. The Chemwiro VIDCO traditional villages are Msongelwa, Mufanawegudu and Charuma. Soils in Chemwiro-Masawi are the Kalahari clays and loam soils. CSO (1992, 1994) Statistics show that Njelele 3 ward, in which Chemwiro-Masawi is part of, has an average area of 200 square kilometres with a total ward population of 8 118, a population density of 40.58, 1 272 households, an average households size of 6.38 and an average of landholding size of 15.73 hectares per household. Chemwiro-Masawi falls in natural region 4 (CSO 1992).

This Chapter has looked at the background of Gokwe in terms of physical features and linked them to the local livelihood strategies and how these would then relate to the co-management initiatives. The last section of this chapter then concluded by outlining some key issues about the two case study RMCs of Batanai and Chemwiro-Masawi. The next Chapter will look at co-management implementation in the two case study sites.

Chapter Seven

The Political Economy of Decentralised Forestry in Mafungautsi

7.0. Introduction

This chapter gives an account of implementation of the co-management process in the two case study RMCs of Batanai and Chemwiro-Masawi. These two case study RMCs were selected out of the initial 8 RMCs when the research began. As cited in chapter five, these two areas would provide an interesting comparison as Chemwiro-Masawi has a longer settlement history whilst Batanai was de-gazetted in 1972 to accommodate people who were evicted from the Mafungautsi forest. The claims over forest ownership of the Mafungautsi would be more interesting by looking at the Batanai area which is largely comprised of former Mafungautsi residents which was not the case in Chemwiro-Masawi. Commercial timber logging took place in Chemwiro-Masawi and not in Batanai. These two case studies were relevant in terms of social outcomes comparison on the basis of commercial exploitation of timber. It is also important to note that by the end of the field research in August 2001, the total number of RMCs in the Mafungautsi area had gone up from 8 to 15. Co-management has resulted in the creation of RMCs which are entitled to collect permit fees for thatching and broom grass collection in the areas allocated to them by the FCZ. Prior to co-management, permit fees were going to FCZ. FCZ still gets permit fees for the areas controlled by the FPU.

This chapter is an in-depth analysis of the processes and dynamics of co-management, which will cover issues such as the formation, implementation, power dynamics, struggles and the decentralised powers and how they are contested and challenged at local level. A few examples outside the case study areas will also be cited in some instances. This chapter demonstrates that co-management in Mafungautsi area, was, right from its inception, tilted more in favour of the FCZ than the local communities. All the various forms of power were retained by the FCZ with the local institutions being marginalized, gaining only peripheral powers. This then resulted in them being upwardly accountable to the FCZ. On realising

their powerlessness in the face of the state, the local communities then decided to embark on their own forms of resistance, which was meant to undermine the co-management arrangement.

7.1. Formation of Batanai RMC

> I understand that every one of us has an important role to play. It is like a work party (*nhimbe*) and I feel it was a wise move by the Commission to involve the communities in the management of the forest since (*kubata mbavha kutuma imwe*) you must set a thief to catch a thief. We knew a lot of things happening in the forest, but we had kept quite because "Forester" was managing the forest on his own (Mr Nkomo interviewed by P. Moyo 12 December 1995).[78]

When co-management was introduced in 1995 the first RMC Chairman, Ignatius Nkomo had high hopes for co-management. He outlined his understanding of co-management as outlined above. This raised the people's expectation as they felt they were going into partnership with the FCZ.

Batanai RMC was formed in 1995. The RMC is in Ndhlalambi Ward 1. This ward has been experiencing power contests. People in Batanai felt that their councillor was not doing much for them. The Batanai people chose their RMC, with a parallel committee being selected at Nyaradza Business Centre. The FCZ then endorsed the committee, which was selected at Nyaradza Business Centre, as it comprised political *heavy weights*. The term *heavy weight* in Zimbabwe is mainly used in the social and political circles to denote people who occupy positions of leadership at various levels. The first RMC was called Mbumbusi-Batanai RMC as it was formed at ward level (Ndhlalambi Ward 1). Ndhlalambi ward 1 comprised nine Village Development Committees (VIDCOs) which are namely Nehanda, Kugarisana, Vakanai 1, Vakanai 2, Sokwela, Batanai, Kupfumaishungu, Chemusonde 1 and Chemusonde 2. This ward further comprised of 34 traditional villages, which are shown in Table 6:

[78] "Forester" is the name used by most people in the Mafungautsi to refer to the Forestry Commission. Most people seem to find the full Forestry Commission a mouthful and difficult to remember and pronounce.

Table 6: Composition of RMCs by villages

Name of Vidco	Villages (Traditional)[79] in the Vidco	Total
1. Batanai	1. Mafa 2. Maruta 3. Matashu	3
2. Nehanda	1. Kampani , Mloyi Tasiyana, Chimbase Rumhumha, Sandare and Mutupani	6
3. Kugarisana	Sidaka, Takayendesa, Chipere, Mkwaiki, Never Chemusonde and Magobhiyana	6
4. Vakanai 1	Sigiji, Karara , Dlana	3
5. Vakanai 2	Mandaba Majerimani , Fuzani and Mapurazi	4
6. Sokwela	Bhandawa , Mabuyani & Makuwerere	3
7. Kupfumaishungu	Fute and Mabiwa	2
8. Chemusonde 1	Tavayena Mateta, Matengambiri, Mgijinyeliwa	4
9. Chemusonde 2	Chikuni Chawa; Zaranyika; Manyepa	3

The Committee formed at Nyaradza Business Centre was made up of the councillor for the ward with the headman as the Treasurer. Table 7 below shows the social status of the people who were chosen into the first RMC for Batanai.

Table 7: Batanai RMC members

NAME	POSITION	SEX	Other Position
Ignatius Nkomo	Chairman	Male	Chief's secretary
Ephraim Chikunichawa	Vice chairman	Male	Chief's Assessor
Andrew Mateta	Secretary	Male	Councillor
Leanos Moyo	Vice Secretary	Male	Farmer
Zwayo Moyo	Treasurer	Male	Headman
Ground Sibanda	Com. Member	Male	District chairman[80]
Edson Sitshela	Com. Member	Male	VIDCO chairman
Mzenda	Coopted member	Male	VIDCO secretary

The first RMC members as shown in Table 7 illustrate the dynamics of public office. This was the committee, which was finally endorsed by the FCZ. This committee misappropriated the RMC funds. No punitive measures were taken since

[79] The colonial administrator referred to traditional villages as kraals. A kraal is a place where animals are kept at night. The same term was used to describe a collection of homesteads under the jurisdiction of a village head.

the FCZ did no want to antagonise the community leaders. The first committee was also composed of males only. Despite the fact that women are involved in the collection of forestry products such as firewood and mushroom, the first RMC did not reflect such a balance. This further illustrates how power dynamics at a local level determines who occupies which position as this will determine the accountability of the RMC institutions. In a female focus group to discuss the RMC history, one woman lamented that the RMC funds would have been safe had a female treasurer been chosen (Batanai Women Meeting 2001). Who gets into which position in gender terms is not as simple as illustrated above. On the 14th of March 2001 a woman had been elected as a treasurer for the Chemwiro-Masawi School Development Committee. Her husband denied her the opportunity. Male focus group discussions highlighted fears of men that if women are appointed to positions in local institutions this entailed travelling which most husbands felt was not "acceptable". Widowed or divorced women tended to have more freedom to participate in such committees (Male Focus Group Discussion 28 August 2000).

The blame for the misappropriated funds was attributed to the *wise man*[81]. As a consequence of this theft the FCZ was forced to conduct new RMC elections on 6 May 1997. The elections resulted in the break-up of the first RMC into Batanai and Chemusonde-Kupfumaishungu. The new RMC members for Batanai were as listed in Table 8 below.

[80] District Chairman for the ZANU PF party. It is important to note that the party districts are at smaller scale than the administrative districts. In some instances they coincided with the Rural District Council wards.

[81] He was coopted as he was considered to be as a *wise man*, an immigrant from Masvingo and was considered to be a successful cotton farmer who later, further migrated to Nembudziya area which has the dark, *Chidhaka* soils, which are very good for cotton cultivation (Interview Agritex Gokwe 2000).

Table 8: RMC Batanai

NAME	POSITION	SEX	Other Position
Nene Sibanda	Chairman	Male	Chairman School Committee Neighbourhood Watch
Mloyiswa Nkiwane	Vice Chairman	Male	Clinic treasurer, Relative
Daniel Mudhara	Secretary	Male	School committee, church chairman
Blandina Mafa	Treasurer	Female	Village head's wife, Club member
Danisile Khumalo	Committee Member	Male	Secretary farmers' group
Agai Kadozoka	Committee Member	Male	Village chairman
Chapungu	Committee Member	Male	Villagehead's secretary

The Committee chosen on the 6th of May 1997 was formed through the FCZ's instructions that the three village heads in the Batanai area (Mafa, Matashu and Maruta) should choose representatives in their villages. Mafa village that is closest to the forest was told to choose 3 representatives with the remaining two village heads being told to choose two each. The FCZ also encouraged them to include women. This resulted in one woman, the villagehead's wife, being identified. The role of the Batanai community was then reduced to voting for the assignment of the different positions for these identified individuals. The Chairman of the RMC was a close relative of the village head of Mafa village. The vice Chairman of the RMC was a close relative of Mr Nkiwane who is the village head for Maruta village. The Chairman was also a Neighbourhood Watch Committee member. The Neighbourhood Watch Committee is the Zimbabwe Republic Police (ZRP) initiative to encourage the rural communities to "police themselves." Village Neighbourhood Watch Committees help to reduce crime within their villages. The Neighbourhood Committee was empowered to arrest criminals in the area and hand them over to the Gokwe Centre Police Station.

The secretary was not from the *royal*[82] family but was thought to possess important skills in terms of his ability to read and write. His appointment to the position of secretary was on the basis of the FCZ's insistence that incumbents to secretarial posts must be literate. The treasurer was the only female in the RMC. She was the wife of the village head. She was considered to be a very powerful woman who had sway in terms of the decisions made by the village head such as joining the kitchen utensils club as highlighted below. Some people even further claimed that she had some esoteric powers but these were never substantiated. The Kitchen Utensils Club contributed an amount to allow members to buy kitchen utensils. Her husband was also incorporated into the group as the only male member. This insured that she had two chances per round to buy kitchen utensils, an advantage over the rest of the group members. Since men traditionally do not own cooking utensils, it meant that she would have double the amount of utensils as the other members. This was because the utensils bought during her husband's turn were hers as well.

Whilst some form of 'guided democracy' was exercised the people were essentially hand picked by the village leaders since the traditional leaders were asked to provide names of people in their villages with the local people being reduced to voting for who gets which position. Traditional leaders are not always democratic as their appointment into office is through a hereditary system - and in some instances the government has the power to approve the appointment of traditional leaders in accordance with local culture (*cf.* Mamdani 1996; 1999 and The Traditional Leaders Act of 1998; Mapedza & Mandondo 2002; Mandondo & Mapedza forthcoming). Traditional leaders assume community position by virtue of birth. This does not seem to align well with democratic principles, which calls for the "voting out" of unaccountable and non-performing leaders. Oppressive traditional leaders are not easily removed unlike elected ones who can be voted out after the expiry of their term of office. Mandondo (2000) argues that some traditional leaders try to be inclusive as far as costs of natural resource management are involved whilst being exclusive when it comes to the reaping of natural resource benefits (*cf.* Mukamuri 1995).

[82] This refers to the people who come from the ruling lineages or clans. These tend to be influential and related to the traditional leaders.

The formation of the Batanai RMC seems to demonstrate that the power to create rules, according to the Agrawal & Ribot (1999) Framework, has been retained by the FCZ. Mr Nkomo's optimism, cited earlier in this chapter, was based on the assumption that the local community would be involved in rule setting. The arbitrary manner in which the electoral process was conducted signified the fact that the FCZ would be setting the rules of co-management. The next section looks at the crafting of the constitutions governing co-management and the resultant distribution of different forms of power.

7.2. Constitution Formulation

Constitutions allocate the various forms of power and set up the general rules and regulations of co-management. Like national constitutions, co-management constitutions need to be democratic and allocate powers evenly so that the resultant institution will not end up being a burden for the local communities. The constitution governing the activities of the RMCs was a modification by the Ministry of National Affairs and Employment Creation (MNAEC) of their standard constitution for co-operatives and clubs. This was done through FCZ's request to MNAEC (Shingai Workshop 1995). The FCZ handed over the modified constitution to the RMCs. RMCs were told that they could modify the constitutions to suit their needs. The RMCs were further reminded that the earlier they finish amending the constitutions, the earlier they would be able to open their own RMC accounts in order to access proceeds coming from grass cutting[83]. All the 15 RMCs embraced the standard constitution without amendments. Accepting the constitution, *as is,* may be explained from a number of perspectives.

Firstly, the constitutions were written in English. Not only was the language foreign, but it was in the legal jargon which rendered it beyond the comprehension of most RMCs let alone the ordinary village members. At a workshop held in 2000, people requested that the constitution be translated into local languages of Shona and Ndebele. The Project Review Committee (PRC) also hinted at the importance of translating the constitution so that the people will be able to comprehend what it

[83] In the words of the Gokwe South officer, they should get organised if they want to get any benefits (interview on 26 October 1999).

says. The official records also show that the Gokwe area has one of the lowest literacy levels in Zimbabwe (Mehlo 1970; CSO 1992). Gwatirisa (1996) further argues that very few trained teachers have been willing to go and work in Gokwe South. This has further contributed to the low pass rates, which has angered the local residents and politicians. Given such a scenario there were limits on what changes the people could make to the constitutions.

Secondly, people were desperately waiting for the permission to use their money for projects. The constitutions had to be accepted first before being allowed to use the RMC funds. Most people were sceptical that the FCZ was telling them the truth that they were holding the RMC funds on their behalf. In the event that they were going to get the initial deposits, some further wondered whether they were going to get the interest generated from the money in the FCZ account. If the people needed their funds for projects they were then supposed to quickly agree on the constitution. They therefore accepted the constitution, as it was, *lock stock and barrel.* The constitutions outlines a neat bureaucracy which however does not seem to be the case on the day to day implementation of the co-management initiative in the Mafungautsi communities. The rules and regulations in the constitution did not take account of the social, economic and political circumstances of the people of Mafungautsi.

The FCZ was using a carrot and the stick approach to persuade local communities to join co-management. People had to accept the constitution in order to access proceeds from grass cutting. These are funds obtained through permits issued by the RMCs for grass cutting in designated areas. Access to the RMC funds was used as an incentive for the RMCs to accept the constitutions despite the fact that they did not understand what the constitutions said.

7.3. Institutional Capacity Building

This section looks at the institutional capacity building within co-management in Mafungautsi. The RMCs were trained in basic bookkeeping courses and the basic roles of the western type committee members (*cf.* Murombedzi 1994 for Campfire Committees). The FCZ conducted the training and at times external experts were

engaged to provide training. Course materials were written in English although explanations were also made in local languages. Three people were trained in each RMC.

RMC members were also trained in bee-keeping. As part of the training a field visit was organised to some bee-keeping projects in Gokwe North RDC area. Such practical training was meant to encourage the RMCs to hasten their pace of investment in bee-keeping. Most of the courses provided were not based on the local demands but were imposed by FCZ. There was no comprehensive planning of courses as these were conducted in an ad hoc manner. Most of the training was provided on the assumption that people were going to embark on bee-keeping. Even the bee-keeping courses seem to have been provided in a disjointed manner rather than in a holistic manner. Officials felt that the local people were ignorant and someone had to decide for them. The powers to make decisions about training needs seem to have been a preserve of the FCZ. The RMC had not identified it as an important aspect that needed training. Only four percent of people interviewed in the CASS research in 1993/4[84] wanted to embark on bee-keeping. Training was however provided in that area because it was considered environmentally benign. Moreover, the FCZ was controlling the resources hence they had the power over resource allocation and use. No training needs assessment was carried out in all RMCs.

7.4. Bee-keeping and Powers over Project Funds

One of the initial project components of co-management in Mafungautsi involved the setting up of a honey processing plant at Gokwe Centre. Honey production was therefore going to be a major activity under co-management. The FCZ gave Batanai RMC two Kenyan-top beehives (see: Plate 1) in 1996.

[84] This was a feasibility study that was meant to assess the people's perception towards co-management. Gordon Matzke headed the research team.

Plate 1: Kenyan-Top Bee hive in the Mafungautsi Forest area

The RMC further "bought" 28 beehives through the FCZ. By September 2001 nothing had been harvested from these RMC owned beehives. Interviews with individual bee hive owners revealed that they managed to get honey at least once a year from their privately owned beehives. As individuals, they went on to market the honey along the Gokwe-Kwekwe road, or sent it to Bulawayo or sold it to a Kwekwe based pharmacist who came once in while to buy honey from those involved in bee-keeping in Gokwe. The question still remains as to why the RMC owned beehives never produced any honey. Interviews with community members and the PRA exercise revealed that most of the community members were not interested in bee-keeping. For example out of the whole of Batanai only two people had more than two beehives per household. Even in those instances, respondents emphasised that bee-keeping was secondary to agriculture hence the lack of interest in following up the issue of honey produced by the RMC owned beehives.

The local people did not decide to buy beehives in the first place. The FCZ considered beehives to be a complementary activity for the co-management arrangement. By promoting bee-keeping outside the gazetted forest this would ensure that there were to be no illegal honey collectors in the gazetted area. The new method of honey collection, which called for the avoidance of fire when collecting honey, was considered to be very suitable for the sustainability of the forest estate.

In Batanai's case most people remarked that there was no change in terms of bee-keeping, as those who had always wanted to carry out bee-keeping would still continue as before - with or without co-management. The initial proposal for co-management envisaged the setting up of a honey processing plant at Gokwe Centre. This further spurred FCZ into encouraging bee-keeping.

By diverting all the resources to bee-keeping some respondents took a resigned mood as they felt that the RMC was conniving with the FCZ to deprive them of their RMC funds. Some felt that this was the RMC members' reward for handing over people accused of committing nefarious activities within the forest to the FPU. Some even felt they were powerless to do anything about it[85] (Youth Meeting of 30 November 1999).

In Batanai and Chemwiro-Masawi RMCs several people felt that RMC members were on the FCZ payroll, just like the FPU. Most people felt powerless to hold the RMCs accountable to them in the face of the FCZ, which owned the forest. This then justified people to use their weapons of the weak by professing ignorance of the co-management arrangement to justify their non-compliance with its rules and regulations. Fires were mysteriously set and no one was ever apprehended. On the 15th of August 1999, one of the severest fires in Mafungautsi was witnessed. Plate 2 below shows part of the fire as it approached the Lutope camp road.

[85] *Chisi chako masimba mashoma* - Literary meant you have no power over someone else's property.

Plate 2: Forest Fire

The FPU failed to make any arrests. A meeting of the youths of 30 November 1999 pointed out that co-management was a major problem as they viewed it as a mechanism for receiving endless rules from the FCZ hence the need to "fix" the FCZ through burning the forest.

People were to be free to choose any project to embark on as long as there was approval from the FCZ. In Sokwela RMC, neighbouring Batanai, there was an acrimonious relationship between the RMC and the FCZ. The locals felt they were being forced into bee-keeping. A member of the RMC who eventually resigned in protest said that the people of Sokwela were being "forced into a dip tank like cattle".

The PRA exercises conducted in Batanai (August and September 2000) indicated that their first preference in terms of projects was gardening. Such projects were not promoted by the FCZ, as they did not directly contribute towards "preservation" of the forest. FCZ officials often cited garden fencing as one of the reasons for illegally cutting down trees. Market gardening was however, considered as an important source of livelihood in Batanai RMC.

Interestingly, honey marketing only had the support of 4 percent of the respondents yet it was being promoted by the FCZ as the main project component. The researcher's questionnaire survey in Batanai RMC area showed that out of the 119 questionnaires conducted, 42 respondents said they were not involved in any form of income generating project. Of those involved, 43% (52) of the total respondents were involved in market gardening as shown by Figure 7 below.

Figure 7: Project Preference in Batanai

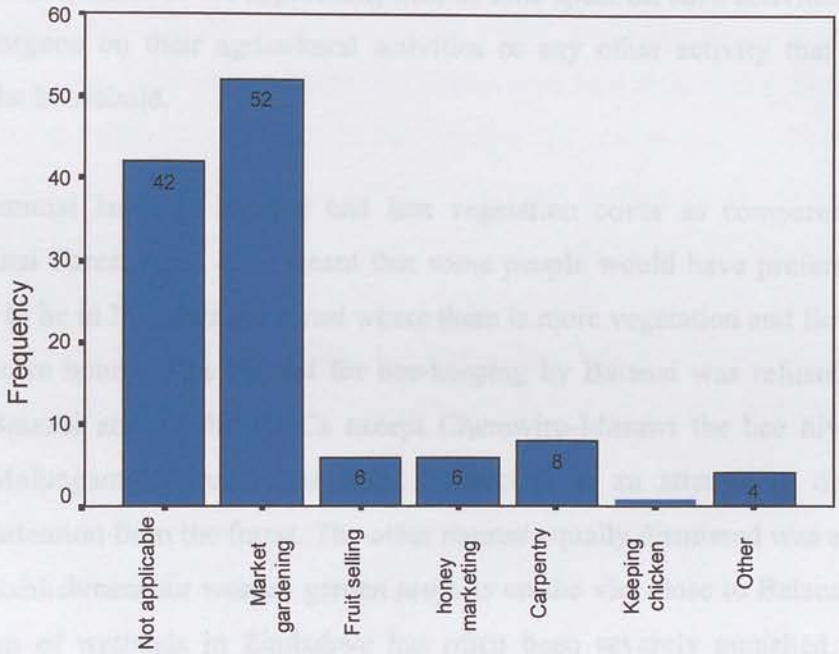

Figure 7 indicates that the people's preferences for income generating projects do not seem to coincide with the FC's priorities. Some community members have suggested that they wanted to embark on income generating projects such as market gardening and poultry. One respondent wanted to know whether the government was also dictating what the FCZ employees should buy with their salaries. He concluded by nodding his head saying, "This is not our money". The RMCs, through the FCZ, bought a number of beehives. The only other payments, which have been carried out, were to the RMC members for serving the community.[86] More recently

[86] There was disagreement as to why the RMC members should be paid since they had not embarked on a single project. The issue was only 'accepted' when the FCZ gave an "explanation" to the residents of Batanai.

the RMCs have been fast tracked into buying more beehives. The beehives given in the name of the RMCs seem to be now benefiting some individuals, as there is no serious monitoring of the beehives by the RMC in order to get the benefits accruing to the RMC.

Lack of monitoring could be a sign that the people do not buy into the idea of bee-keeping - so why waste time making follow-ups on issues which are of little interest to them. The fact that the revenue generated by honey from beehives could also act as a disincentive for the people to closely monitor the honey collected. This may be viewed in the context of the opportunity cost of time spent on such activities, which is time forgone on their agricultural activities or any other activity that directly benefits the household.

The communal lands in Batanai had less vegetation cover as compared to the Mafungautsi Forest Area. This meant that some people would have preferred their bee hives to be in Mafungautsi forest where there is more vegetation and flowers for bees to make honey. This request for bee-keeping by Batanai was refused. In the case of Batanai and all the RMCs except Chemwiro-Masawi the bee hives were outside Mafungautsi Forest. This could be argued as an attempt to divert the people's attention from the forest. The other request equally dismissed was a request for the establishment for women garden projects on the vlei close to Batanai RMC. Cultivation of wetlands in Zimbabwe has often been severely punished through official policy and legislation enforced through the Natural Resources Board (*cf.* Sithole 1999).

The above section on bee-keeping clearly demonstrated that the FCZ wielded not only powers to create rules, but it also wielded powers to make decisions about resource use. Local people were "encouraged" to buy beehives as they had the blessing of the FCZ. Such initiatives would also divert the people's attention from other forestry products. In some instances, beehives were supplied to the RMC and FCZ deducted the money from the RMC account. Even those who wanted to carry out bee-keeping within the Mafungautsi forest, in the Batanai area, were denied that opportunity.

7.5. Designation of Grass Cutting Areas

Grass cutting pre-dates co-management in Mafungautsi. The only change brought about by co-management was that RMCs were allocated vleis where they issued permits and collected revenue in those areas. Under co-management designation of grass cutting areas is done each year before the Grass cutting season commences around June. All RMCs attend the Pre-Grass Cutting Workshop which sees the different RMCs being issued with new permit books if they have finished the old ones. The FCZ then discusses in detail the rules that are to be followed during the grass-cutting period. The exercise entails the demarcation of thatch and broom grass-cutting boundaries depending on the availability of thatching and broom grass in designated areas. The demarcation exercise involves the drawing of sketch maps and in some cases field visits to show RMC members their boundaries. Designation of grass cutting areas was a time for contestation with some RMCs claiming that they have been given smaller areas. The FCZ also gets its own areas, which in most cases tend to have the best quality of grass and are administered by the FPU. In the 2000 vlei allocation process some RMCs pointed out that they were disadvantaged as the FCZ was allocating itself areas with more grass than RMC areas. Most people have accepted the position of the FCZ as they feel they are the owners of the forest

> The RMC goes to meetings with the FCZ and come back to inform us what to do. We work with Forestry Commission because they own the forest (Interview in Batanai on 29 September 2000).

Designation of grass cutting areas was carried out by the FCZ. With a little pleading an RMC would get more area for grass cutting at the expense of another RMC since the FCZ did not want to reduce the permit area under the FPU jurisdiction. This further demonstrates that the FCZ had not only the power to make decisions about resource use and allocation but also the power to implement and ensure compliance to the new or altered rules. The FPU, with the help of RMCs, enforced grass collection in designated areas.

Regulation of thatching grass cutting was one of the main activities of the RMCs. In fact it was the only time when some villagers would be reminded of the existence of the RMCs. RMCs were often referred to as "*Makomiti euswa*," which literary meant "Grass Committees" a view, which most people felt was a reflection of their activities. This view was also echoed in an interview with the FPU guards who felt

help from RMCs was at its peak during the grass-cutting period only (December 1999). The Batanai RMC was actively involved in the issuing of permits to allow the people to go and cut thatching grass in the vleis within the Mafungautsi Forest. The terms of the permit were set up by the FCZ. The RMC were getting 2 bundles of grass out of every 5 that the grass cutter cuts in the forest in a given day. Each grass bundle is supposed to have a diameter of 30 centimetres measured at a height of one metre above the ground. In the event that the person opted to pay cash the permit fee was then Z$7 per day for one person to be allowed into the forest to cut as much grass as one can cut. Plate 3 below shows grass cutting in Lutope vlei.

Plate 3: Grass Cutting in Lutope vlei

Batanai RMC managed to raise Z$9 826.70 up to 1999 from both grass and broom grass cutting. The money or the grass used as payment was supposed to go to the RMC treasurer. However, in practice, grass would be taken to any member of the RMC. In some instances the RMC's share of grass was left in the vlei areas and they had to make arrangements to transport the grass to the RMCs' members homesteads. Some people took advantage of this confusion and would claim to either have paid in cash or left the grass in the vlei. Although the initial FCZ suggestion was that people would get the receipt from the RMC secretary and then pay to the treasurer. This was an administrative farce as the two people happened to be staying at different places and the secretary ended up, in a number of instances, getting both

the cash and the receipts. In other cases some people were paying the treasurer and being given hand written papers to use to access the Forest. This then made it impossible to be able to audit, with a reasonable degree of confidence, the actual amounts obtained from grass cutting. Once the loopholes had been identified, it then became important to make sure that people would want as much as possible to have their homesteads being used as the grass collection centres. The fact that not all the grass was being bought and that a lot of it was rotting was a good basis for falsifying the actual bundles that were destroyed by termites or through rotting. The researcher counted 230 bundles of rotting grass at the Batanai RMC Treasurer's homestead on 19 May 2001.

There seemed to be no incentive to try and take the grass to better market places such as Gokwe centre. The thatching grass is mainly used for the construction of huts and lodges. The Picture below shows one of the lodges built by the FCZ as part of the Training Centre, which was a component of the co-management project.

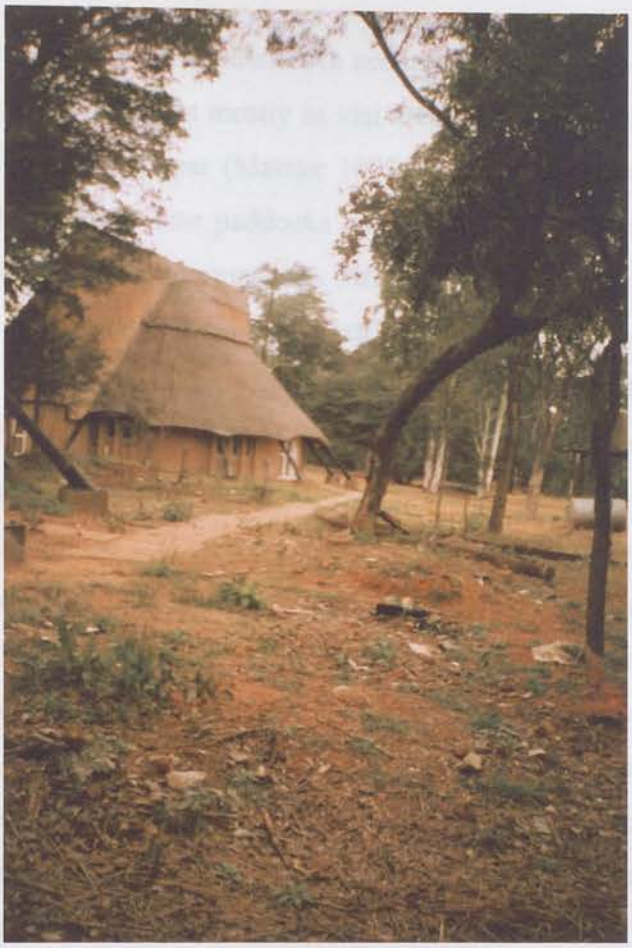

Plate 4: A grass thatched Lodge

This highlights that not only did RMCs not have power to adjudicate - they also did not seem to have the legitimacy and support of the local people. The people then quietly decided to use their various strategies, which included avoidance of paying permit fees.

7.6. Reeds Collection

The other important minor forest product from the Mafungautsi are the reeds. Reeds are not common in the forest area. They are only found along some riverbanks mainly along some sections of Lutope, Mbumbusi and Sengwa Rivers. Reeds are important for making sleeping mats and baskets. This is not a main product and most RMCs do not have this product in the areas that they administer. The making of baskets and sleeping mats is an art, which only a few people are involved in.

7.7. Livestock Grazing

Grazing of livestock in the forest area does not need a permit. The grazing area is about 40 000 to 50 000 hectares mostly in vlei areas. An estimated 20 932 head of cattle enter the forest every year (Matzke 1993). The initial concept to subdivide some sections of the forest into paddocks was later set aside due to the reduced numbers of livestock to be accommodated. Firstly, Agritex's carrying capacity[87] for the forest would have meant that a lot of cattle would have to be barred from the paddocks. This would entail the reduction of cattle per household; a decision reminiscent of the colonial Land Husbandry Act of 1951 that resulted in forced grazing and land use planning schemes (Drinkwater 1989). Issues such as the security of livestock were also raised. Cattle manure is also an important input in farming. The researcher witnessed a number of livestock sales by private buyers, mainly the Midlands Agricultural Buyers. Despite the tightening of rules and regulations on the selling of cattle by the Veterinary Department, cattle rustlers still managed to sell stolen cattle.[88] Batanai RMC benefits from grazing their cattle in Mafungautsi Forest. The FCZ allowed people to graze their livestock as they were helping to reduce fuel load for the forest fires. This was perceived to be a mechanism of reducing the risk of forest fires, hence its promotion.

7.8. Deadwood Collection

Dead wood collection does not need a permit but the FPU[89] has to accompany people collecting dead wood. In the communal lands of Gokwe nearly all the households use firewood as their main source of energy for cooking and heating (CSO 1994; Field Observations and interviews). This means that the other main component of the co-management has been the access to dead wood within the forest. In Batanai people have been collecting dead wood once every month under the supervision of the FPU. In some cases due to the commitments of the FPU, the Batanai people were not able to collect firewood. The collection of firewood once a month is an inconvenience to the people as events such as funerals, which have become common due to the AIDS pandemic have also increased the demand for

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[87] The concept of carrying capacity remains a controversial topic with some researchers arguing that, its not an exact science, especially if one considers the dynamism of the tropical and savanna ecosystems (Cousins 1990, 1993; *cf.* Mapaure 2002 on fire and ecology *cf.* Tiffen, Mortimore & Gichuki 1994; Foundation for Environmental Conservation 1998).

[88] The Zimbabwe Republic Police (ZRP) Gokwe confirmed cases of cattle rustling but could not provide exact figures showing the magnitude of this problem.

[89] These are the armed guards who are employed by the FCZ.

firewood which can not wait until the next official firewood collection day. Even for those who are present, if one does not have a scotch cart, then it's not possible to get enough supplies for a month. One of the golden rules for firewood collection is that people should not carry axes with them as these might be used for nefarious activities such as pole poaching. People in Batanai have argued that even dead wood still needs the help of an axe to cut it into manageable pieces especially for those who will be carrying the firewood on their heads. At one meeting the people of Batanai questioned why axes were not permitted yet the FPU still moved freely in the villages with their guns (22 March 2001). In an instance where the Batanai and Sokwela people complained to FCZ the response was that they were only interested in firewood and not the co-management project as a whole. This further angered the people whose bitterness towards the FCZ can be traced back to the designation of the Forest. The bitterness was expressed in the Chirima area

> The meeting with the people of Chirima Ward clearly showed that the community was very bitter towards the Forestry Commission's policy of being oppressive in its policies of protecting the Mafungautsi Forest (Maturure *et al* 1994: 39).

The firewood case in Batanai clearly shows the amount of power that the FCZ wielded. It created rules, made decisions about resource use, implemented firewood collection regulations, ensuring RMC and local people compliance and further acted as the jury for those arrested. In some instances, the arrested people were then passed on to the magistrate's court at Gokwe Centre. RMCs were more or less an extension of the FCZ resulting in them being upwardly accountable to the FCZ and not the local people. Those who ran out of firewood before the official firewood collection day ended up stealing from "Mugabe's Forest". This then contributed towards negative environmental outcomes.

7.9. Other Non-Timber Forest Products and access into the forest

The collection of non-timber forest products such as mushrooms, edible worms and indigenous fruits do not require a permit. Mushrooms are the most abundant resource especially at the beginning of the rainy season, which normally begins towards the end of October. A number of women are mainly involved in mushroom collection. Some sell the mushroom along main roads and at Gokwe Centre. A few however take the mushroom to urban centres such as Kwekwe or Bulawayo

(Interview with Mrs Mumvuri 16 January 2000). Some people dried it, in order to use it later as some relish. Mushroom is an important source of protein in rural areas. Fruits are also an important source of supplementary feeding. Fruits are an important source of nutrition especially towards the new harvest season when food reserves for most families would be at their lowest (Campbell 1987). Commercial exploitation of any forest products is a criminal offence. The Gokwe South Rural District Acting Campfire Co-ordinator commented on the increased marketing of fruits by communal land dwellers by saying:

> We have to act to stop the people from selling the fruits. As a Council we need to make a resolution. Chief Njelele does not want people to sell indigenous fruits but people will not stop (Interview of 16 November 1999).

Stopping the selling of fruits without understanding why people are involved in it in the first place is destined to fail. The Communal Lands Forest Produce Act of 1987, which has also been cited by the FCZ, forbids any commercial exploitation of forestry resources in communal land by the communal land dwellers. This is contrary to the co-management notion, which states that "forests should serve the people, and that the rural population should have a formal role to play in forest management" (Roper & Maramba 2000: 9). Roper (1997) cited in Roper & Maramba (2000) further states that the legal framework should be enabling for co-management:

> An enabling policy and legislative environment that permits the giving of rights and responsibilities for forest management to the people more dependent on the resource (Roper 1997: 35).

It is still a criminal offence to market fruits. Local people felt they were never safe when looking for fruits in Mafungautsi as the FPU was always suspecting that they intended to commit illegal activities. Many residents of Mafungautsi cited harassment incidences at the hands of the FPU on a number of occasions. Dogs accompanying their owners into the forest were allegedly shot by the FPU as they were perceived as "tools" for poaching within the Mafungautsi forest.

One of the main concerns of the Batanai communities was that they should be allowed to perform some rain making ceremonies along the Lutope River in Mafungautsi Forest. This issue was also discussed by the Project Review Committee, which said the FCZ had to make an administrative decision. One further

sensitive issue was the issue of graves within the forest, as people were not allowed to perform ceremonies to appease the dead. The local people, however, always found ways to circumvent such a neat bureaucracy. The new representative institution of the RMC has not been able to change the FCZ's decision.

7.10. Powers over Financial Resources

Power over financial resources and their utilisation is a key element in decentralisation (Agrawal & Ribot 1999, Crook & Manor 1998). The RMCs have been collecting permit fees over some vleis since 1996 when they had the first opportunity to supervise grass cutting. Table 9 shows the amounts that have been generated by eight of the most active RMCs.

Table 9: Revenue generated by the eight most active RMCs

RESOURCE MANAGEMENT COMMITTEE	REVENUE GENERATED TO DATE (FROM 1996 TO 2000)
Batanai/Mbumbusi	Z$9 826.70
Chemwiro-Masawi	Z$23 741.38
Kushinga/Gwehava	Z$6 048.84
Gababe	Z$10 771.00
Sokwela	Z$4 819.20
Tasununguka/Mukai/Rugare/Chemahororo-Hovano	Z$5 430.24
Chomusonde (Kupfumaishungu)	Z$4 728.45
Hlangano RMC	Z$15 139.85
Total	Z$80 505.66

Table 9 shows that from 1996 to 2000 a total of Z$80 505 was generated by the eight most active RMCs. The amounts that have been generated have not been as high as they should be due to the non-payment for permits by the local residents. One respondent confirmed that those who would have paid the RMCs were

becoming a laughing stock for those who did not pay. This was said to be prevalent during beer drinking sessions (Interview Mr Muyambo 20 January 1998). Batanai RMC generated Z$9 826.70.

Despite the RMC "owning" the money it was initially kept by the FCZ. The local communities were only allowed to utilise the money on condition that they accepted the co-management constitution. Even after the acceptance of the constitution, the FCZ had to countersign all the transactions undertaken by the RMCs. No financial withdrawals could be undertaken without the FCZ's authority and signature. Whilst this could sound like good oversight by the FCZ, the fact that even the projects to be invested in had to be decided by the FCZ, would show the centralisation of power within the FCZ itself. Batanai ended up investing its resources in bee-keeping. On realising that they had no decision over "their money" a number of people ended up getting resources illegally. Even within the RMC itself, some funds and thatching grass could not be accounted for. The local people felt that all this was due to connivance between the FCZ and the RMC members.

7.11. Poles for Construction Purposes

One of the second most important uses of trees in the Mafungautsi is for construction purposes. Most people in the Batanai area have pole and *dagga* (clay) huts with some having upgraded their huts by using burnt or unburnt clay bricks with thatch roofing. Very few people had brick under asbestos or iron sheets. These people included the Village Community Worker and the "wiseman" who later migrated to Nembudziya in Cheziya-Gokwe (also called Gokwe North RDC) where there are better soils for cotton cultivation. Poles are important in terms of the construction of cattle kraals as is shown in plate 5 below.

Plate 5: Cattle Kraal

Poles are not only important for cattle kraals. They are also used for building maize storage facilities (*ngarani)* and the construction of huts. Vermuelen (1994) estimated that an average household in the Batanai area of Mafungautsi required an annual total of 8.3 tonnes of wood. Of this, 0.8 tonnes is firewood for special occasions, 4.0 tonnes is firewood for day to day use with the remaining 3.5 tonnes as wood for construction which comprises freshly cut poles of specific sizes for various components of wood structures (*cf.* Vermuelen 1994). This has resulted in the incidences of pole poaching by the people in Batanai. The dead wood that they are allowed to collect for their firewood is not suitable for the different construction purposes. There are also various tree types that are considered suitable for house construction such as *Mupangara* and *Mubvamaropa*, which are prohibited hardwoods. People have also been worried about establishing woodlots in the areas outside Mafungautsi for a number of reasons.

Firstly, there is serious land shortage[90] in the Batanai area. Although some people have disproportionately large pieces of land, most of the people need large pieces of

[90] Land conflicts were prevalent in Gokwe. Chief Njelele on 16 December 1999 tried land conflict cases. He later referred some of the cases to Gokwe South RDC after failing to resolve them. In 2000 incidences of physical violence were reported on the national radio over ownership of communal land in Gokwe South RDC

land as the land is not very productive (*Personal Communication* Manyame 2001, Cottco 2001).[91]

Secondly, a number of people have hinted at their worry that once they establish woodlots in their areas the FCZ would come in and take over their land to incorporate it into the forest (*cf.* Matzke 1993; Ranger 1989 on the Matobo National park and Moore 1998 on the Eastern Highlands case). Due to the central role of poles for different construction purposes in the Mafungautsi area people have continued to illegally cut down trees in the forest area. Table 10 below shows the number of arrests for pole cutting in the Mafungautsi Forest area.

Table 10: Forest Poaching Convictions

YEAR	FOREST POACHING CASES
1991	5
1992	5
1993	14
1994	11
1995	3
1996	22
1997	26
1998 (APRIL)	13

Source: Gokwe Zimbabwe Republic Police (ZRP) Records

Co-management has not helped to reduce the number of forest poaching cases in Mafungautsi. Table 10 above shows an increasing trend in forest poaching convictions in Mafungautsi. Whilst the figures show an increasing trend it is however crucial to note that the data was collected by the police for their own purposes. This raises questions on the methodology used and whether the high numbers are a reflection of increased monitoring and not an increase in the actual figures of poaching. The figures also reflect numbers arrested and not the actual level of poaching in Mafungautsi. Some people were not included in the final

[91] Cotton has been doing quite well due to the form of semi-extensive farming that the farmers embark on. They cultivate large pieces of land. The harvest per unit area is not high. Montmate

statistics as they would be cautioned or they might even bribe the FPU. The outcome of co-management does not seem to have improved the forest. On realising that the FCZ is still centralising all the powers to its offices, the local community made their statements using their axes and lighters.

7.12. Wildlife Hunting for Domestic Purposes (Poaching)

Wildlife hunting is not permitted. Wild pigs and zebras were said to be causing some crop damages especially in areas, which are closer to the Lutope FPU Camp. The "poachers" felt they are justified in killing the animals that would have destroyed their crops.[92] Table 11 below shows the recorded cases violating the Wildlife Act. Figures for latter years have been difficult to obtain due to the government's intention to hold on to information, which might be considered as detrimental to the *security of the country,* especially through trying to link land invasions with increased poaching figures.

Table 11: Cases violating the Wildlife Act

YEAR	NUMBER OF CASES
1991	0
1992	0
1993	0
1994	16
1995	8
1996	7
1997	0
1998 (APRIL)	0

Source: Gokwe Zimbabwe Republic Police (ZRP) Records

However, it is also important to note that some members of the FPU itself have been involved in poaching. There is one recorded case of poaching where the FPU

(Cottco) Manager 2001 interviewed at Gokwe Centre.

[92] Sithole, elsewhere, narrated an account of villagers who justified killing wildlife as they argued that they wanted to recover their crops, which had been eaten by elephants and other wildlife (Sithole *Personal Communication* 2000).

members killed a buffalo for meat. Some villagers argued that some poachers were working hand in hand with the FPU. The people in Batanai lamented the cruelty of the FPU which they accused of killing dogs seen in the company of their owners in the forest, chasing people seen smoking in the forest and general harassment of villagers who were suspected of poaching. Villagers also lamented the uneven implementation of the rules by the FPU, which was allegedly attributed to corruption within the FPU. After realising that the RMCs were not accountable to the local community, local people simply did not blame poachers. It was at least seen as a way of getting benefits from Mafungautsi. Resource destruction within the reserved forest was no longer seen as bad, but it was perceived as a way of "fixing" the government and the FCZ. The following section looks at forest fires.

7.13. Forest Fires

Wild fires are a major management problem, particularly in protected areas where their occurrence is often viewed negatively. Consequently, each year range and forest managers allocate huge financial and human resources into fire management (*cf.* Jones 1989; Gondo 1993 ; Mapaure 2001). This view pointed out by Mapaure (2001) referring to Sengwe Research Centre (Chirisa Game Reserve) on the northern part of Gokwe South District, could well be true for the Mafungautsi area which generally approximates the reserved and park areas in Zimbabwe.

Forest fires have been on the increase in the Mafungautsi Forest area. According to the FPU forest fires seem to be well timed in that they occur mainly after the end of the grass-cutting season. Most people felt that it would be better to have some sort of controlled burning which would help control the tick problem. Burning, it was argued, would help eliminate ticks if carried out before the onset of the rain season so that the grass would re-generate. In 1999 the problem was exacerbated by the reduction in funding for the Veterinary Department which translated into lack of dipping chemicals. The colonial Forest Officer was nicknamed "*Dzimamoto*" which literally meant the one who orders people to extinguish fires. In Batanai the Mafungautsi Forest is often referred to as *Dondo* or *Sango rasekuru.*[93] It is also

[93] *Dondo* is a Shona name for the "Wilderness" whereas *Sango Rasekuru* literally means the grandfather's Forest, which were meant to portray the image that people could do anything in Mafungautsi and possibly get away with it, if not caught by the FPU. The Mafungautsi Forest is

important to note that forest fires have been a challenge in the Mafungautsi area for a number of years (*cf.* Hinde 1949). This early perception of "the Fire Problem" led to stiffer penalties, not only in Zimbabwe. In Guinea, setting bush fires carried a death penalty (Fairhead & Leach 1996; Grillo & Stirrat 1997).

The fire fighting techniques recommended by the FCZ were resented quietly by some of the RMC members. One RMC member pointed out that the FPU had told them that they had to use shovels as effective tools for fire fighting. The RMC did not have shovels and they were not permitted to use their traditional fire fighting "tree branches", as it is illegal to cut tree branches. Despite the presence of signs along the forestry boundary clearly written "**Forestry Commission, Mafungabusi Forest: Do not cause fires**" fires were an annual event in Mafungautsi. A number of people said they were not rushing to assist in fire fighting, as the FPU would in turn blame them for having started the fire.

The fact that livestock grazing is permitted within the forest is a potential way of reducing the intensity of the fires as grazing reduces the biomass, which contributes to the intensity of fires (Mapaure 2001). Whilst forest protection from fire is an important element Mapaure's studies at Sengwe Research Centre (2001) seem to indicate that fires might not necessary be dangerous to vegetation in the savanna areas. Moore (1987, 1996) further warned of disastrous consequences of over-protectionist policies in forest fire management (*cf.* Mapaure 2001). The vegetation regime in the savanna woodlands has adapted to the usual fire occurrences. Some of the trees have adopted by developing thick barks to protect themselves against fires.

Despite co-management, there have been fires in Mafungautsi. Some of the worst fires were in 1999 and 2000 (see Plate 2). Fires were often attributed to "poaching" and the need to improve the quality of grazing. Once people realise they were powerless against the FCZ; they then used their own strategies to counter the FCZ powers.

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personified as a Grandparent who has a soft spot for the grandchildren. "Wilderness" invokes images of something wild that has to be tamed.

7.14. Meetings

The Batanai RMCs mainly conducted in the presence of the FCZ. One RMC member confessed that whilst they would have wanted to hold meetings on their own, there were a number of questions which would be raised by the people which were beyond their scope (Interviews of 20 January 1998). Meetings were conducted in the presence of the FCZ, which also took the official minutes of the proceedings. These were later typed at FCZ District Offices and later filed. Controversial issues such as the firewood and power over the use of resources never made it into the official minutes, which were written in English. RMCs did not keep copies of the "official" minutes.

In Batanai RMC, the evidence right from the inception and operation of the RMC seem to clearly demonstrate that the FCZ had the final say in all major decisions. The FCZ seemed to be lecturing to the people about the importance of "preserving" Mafungautsi forest as illustrated previously. On realising that they were not benefiting much from co-management the local people decided to contest co-management in other arenas through the use of what may be called the weapons of the weak. The next section looks at the unfolding of co-management in the second case study of Chemwiro-Masawi.

7.15. Implementation of Co-management in Chemwiro-Masawi

This section looks at co-management in Chemwiro-Masawi beginning from its inception, implementation and the power dynamics in the implementation process.

Chemwiro-Masawi RMC was formed in 1995 and began grass cutting administration in 1996. This RMC falls under Njelele 3 Ward 14. The Chemwiro-Masawi RMC was made up of the people shown in Table 12.

Table 12: RMC Chemwiro-Masawi First Committee Members

Name	Position	Sex	Other Position
Joseph Chikate Moyo	Chairman	Male	Chairman: School Committee
Zebedia Supelo	Vice Chairman	Male	Farmer
Gadzai Marange	Secretary	Male	Village Committee Member
Betty Marumisa	Treasurer	Female	Village secretary/Treasurer
Philemon Hove	Committee Member	Male	Committee Member (Village Committee)
Anna Kamusha	Committee Member	Female	Farmer
Sipiwe Kimbini	Committee member	Female	Farmer

The RMC comprised of four males and three females. The RMC Chairman was considered an influential man. Chemwiro-Masawi RMC had three women in its committee. This was one of the highest representations of women within co-management.

7.16. Constitution

In Chemwiro-Masawi as in Batanai the constitution was a prototype handed over to the RMC by the FCZ. The interesting part was that one of the traditional heads who is a former teacher later questioned what the constitution meant by saying that an RMC could expel anyone from the community yet it was traditional leaders who had powers to do that. The people of Chemwiro-Masawi were in the same dilemma as in Batanai in terms of comprehending "their" constitution. They also accepted it in order to access the RMC funds.

7.17. RMC Funds

The first RMC in Chemwiro-Masawi could not provide a good financial record as most of the financial records were destroyed by fire during the grass-cutting season. In the 1996 grass-cutting season some RMC members were allowed to camp in the vleis together with the FPU to enable them to monitor and supervise the people cutting grass and receive payments within the Mafungautsi Forest itself. They built a temporary thatching grass shelter. A fire from within the shelter burnt the financial records. The fire, according to the RMC Chairman, also destroyed some of their permit records therefore making it difficult to know how much had been collected.

This made auditing some form of guesswork at best, as there was no longer a solid basis for carrying out the audit. This was seen by most community members as a deliberate move to destroy the financial records so as not to be held accountable for financial misuse. In 1997 the same RMC was retained. The only change was the addition of three co-opted members. Co-opted members were people added to the RMC who had no specific positions. The main reason was to increase the number of people monitoring resource use in Mafungautsi thereby reducing the transaction cost for each RMC member.

The FCZ seemed to be sending contrasting signals about the participation of women[94] in co-management. Female members of Chemwiro-Masawi were chosen after the FCZ pointed out that there was a need to elect women in the RMCs. On the other hand, the invitation note for the Workshop at Shingai Training Centre held from 6 –7 November 2000, stipulated that each traditional leader had to bring along one male from their village.[95]

The revenue generated by the RMC was initially kept by the FCZ since RMCs had no constitutions, which would enable them to open bank accounts. This was considered unfair. One man pointed out that, "We want to have control of our finances - not to have the FCZ controlling our finance. The RMC should make it clear to the FCZ"[96] (Mr Gumberu 9 November 1999). The fact that it took the RMC over two years to get their own account book was considered unfair. During that time the Co-ordinator said she was "keeping the funds safe". To make matters worse, even after the opening of accounts all transactions had to be countersigned by the FCZ. Chemwiro-Masawi was strongly advised to embark on bee-keeping projects. This chapter will later look at attempts to hi-jack the bee-keeping project by a consortium of business people. The next section looks at the organisation of RMC meetings.

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[94] Mayoux cited in Locke (1999: 280) points out that the participation of women should be carefully scrutinised to make sure that its not an addition of burdens with marginal benefits.

[95] *Muuye nemunhu mumwe chete wechirume wemuraini menyu.* An invitation letter dated 2 November 2000.

[96] *Tinoda kuva nesimba pamari yedu kwete kutongerwa neFC. Pamwe RMC yedu haisi kujekesa nyaya iyi.*

7.18. Organisation of RMC Meetings

In Chemwiro-Masawi there were three meetings conducted in 1998. The agenda for the first meeting was mushroom collection, dead wood collection and report back. In this meeting the FCZ was taking the "official" minutes of the meeting. The second meeting was on 21 April 1998. This was a pre-grass cutting meeting meant to discuss entry rules and regulations during grass cutting. Chief Njelele, head of the FPU and FCZ Promoter,[97] attended this meeting. The third meeting for 1998 was in October. The agenda was to discuss the fire that destroyed the permit book and the 7 bundles of grass that had been stolen. The fire was said to have engulfed the temporary shelter used by the RMC during the grass-cutting period.

All the meetings were called for by the FCZ. The RMCs have not organised their own meetings as yet. The main reason why RMCs have not had an opportunity to organise their own meetings is that there are few activities to report on. Besides grass cutting there are normally no other activities. As Mr Chikate (Chemwiro-Masawi RMC Chairman) remarked, people would not come to meetings where they are promised development projects which never materialise. It would be more productive to go to their fields or gardens rather than attend unnecessary meetings. In Batanai it was surprising that an RMC member said they needed FCZ to come to their meetings because the people will not listen to the RMC members alone. It looks like the RMC, as an institution, does not have legitimacy in the eyes of its constituency.

The RMC in Chemwiro-Masawi was accused of behaving like an appendage of the FCZ

> RMCs are now behaving like FCZ employees. They won't do anything without consulting the Forestry Commission. They can not even hold meetings without the assistance of the Forestry Commission[98] (Mr Matambo 11 November 1999).

The fact that in Chemwiro-Masawi people realised that their RMC had no decision making powers and whatever they requested still had to be authorised by FCZ

[97] Co-management resulted in the employment of two Forest Promoters. Their main task was to promote the co-management concept in villages surrounding Mafungautsi.

[98] *MaRMC vavakushanda sevanhu veFC nokuti havadi kuita chinhu vasina kunzwa kuFC. Chero misangano vanoda kubatsirwa neFC.*

resulted in them deciding not to attend RMC meetings - since they did not yield any results. The FCZ was making all the decisions and the RMC was now seen as only a mouthpiece for the FCZ. The RMC was therefore upwardly accountable to its master - the FCZ. The following section looks at the question of RMC legitimacy.

7.19. Legitimacy of the RMC

People in Chemwiro-Masawi often questioned the legitimacy of the RMC. A number of people agreed to get permits for grass cutting and promised to pay using bundles of grass. After cutting of grass they then sneaked out of the forest area without paying the required permit fees. This became a serious problem for the RMC. Table 13 below shows some of the people who owed the RMC some funds.

Table 13: Outstanding RMC payments

NAME	No.OF BUNDLES	PRICE PER UNIT	TOTAL OUTSTANDING
Esther Jojo	8	$6	$48
Chasunda Simbarashe	12	$6	$72
Dawu Mutoranhema	4	$6	$24
Mubaiwa Mukulumo	4	$6	$24
Mazithulela Dokotera	8	$6	$24
Brian Mangisi	16	$6	$96
Isaac Moyo	4	$6	$24
Total	56	$6	$336

Some of those who did not pay for grass cutting professed ignorance of the payment mechanisms. They argued that they felt it was the RMC's role to come and collect the thatching grass from their homesteads.

The reason why the community questioned the legitimacy of the RMC can also be attributed to the fact that RMC members tended to associate themselves more with the FCZ rather than with the people they were supposed to be representing. Mr Chikate, the Chemwiro-Masawi RMC Chairman - in an interview with the researcher (2 February 2001 and during the 2000 Pre-Grass Cutting Workshop) asked for uniforms and arms similar to the ones given to the FPUs as a way of *frightening* the people into following the rules and regulations governing the

forest.[99] The chairman further claimed that he had seen poachers with four dead zebras driving out of the Mafungautsi Forest. But when he was questioned further whether he had reported the incident he said he had not. This illustration might have been used as a way of reinforcing the need to get FPU uniforms and arms. RMC members were locally perceived as assuming superior postures as they had attended courses organised by the FCZ.

The RMC Chairman also questioned why the fine on forestry poachers was still being sent to central government and not the RMC. He said this was a disincentive for arresting poachers. Moreover, he argued they were not even getting an allowance for the time they were in the forest. In my discussions with the RMC Chairman, I could discern that the chairman felt that being an RMC member was the first step towards being employed by the FCZ. He felt that, in the long term, the FCZ would employ him. In some instances he would inquire from the researcher if he could offer him some employment opportunities at any level. During the mid term evaluation exercise Willie Matambo said;

> We no longer understand the operations of the RMC. They have forgotten that we elected them into office. The RMC chairman now sees himself as a senior employee of the FCZ who can make decisions. All the time he tells us that the FCZ has ordered him to do this and that (9 November 1999).[100]

RMCs are unilaterally making decisions, which at times bypass traditional leaders. In most cases they simply say the FCZ told us to do this (Chief Njelele 17 January 1998). This was compounded by the continued presence of the FPU, which gave the local communities the impression that it is still business as usual for the FCZ. One member of the FPU said most people were questioning why they were still patrolling the forest with guns, the same approach used before the introduction of co-management. People questioned why they are still carrying guns as if they are going for a battle.[101] This then led people to think that they were still dealing with the same oppressive FCZ, which evicted some of the Gokwe residents in the 1960s, and again in the 1980s.

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[99] *Munhu anotoda anepfuti* which literary meant that you can only be obeyed if you have a gun.

[100] *Kushanda kwavo hakuchanzwisisiki. Vakanganwa kuti vakatumwa nesu. Havana kubvunza FC musi wesarudzo yavo. Chairman avakutozviona semushandi mukuru weFC anogona kupa (decision) zvokuita ari oga. Anenge oti FC yati "Ndidai".*

7.20. Electoral Fiat

For instance, in Mafungautsi, there is guided or controlled democracy, and elections are held under the auspices of the FCZ. The FCZ 'encouraged' communities to elect RMCs. In Chemwiro-Masawi, elections were first conducted in April 1996. This was the inaugural committee in Chemwiro-Masawi. In May of the same year the RMC began grass cutting supervision. In 1997 there was another election for the RMC members. On 5 July 2000 the community passed a vote of no confidence in the RMC and elected a new RMC. However, the FCZ nullified this move on the grounds that it was better to retain 'trained' committee members despite the fact that they no longer had the people's mandate. Some people resorted to stealing grass from the forest without paying the permit fees - as either way, the funds were not benefiting the community in any way. The next section looks at the controversial issue of proceeds from commercial timber logging.

7.21. Proceeds from Timber Logging

Co-management entailed sharing of decision-making and benefits derived from the Mafungautsi Forest. Commercial timber logging is considered one of the most lucrative benefits from forestry - the "green gold" of forestry. In the Chemwiro-Masawi area the Gokwe South RDC gave a concession to a private company called Mockdale. The Company was granted the right to cut commercial timber outside the Mafungautsi Forest in terms of the Communal Lands Forest Produce Act of 1987 as read together with the Rural District Councils Act of 1988. These two statutes empower the RDC to derive benefits from the commercial exploitation of forest resources in the areas under its jurisdiction, while the FCZ get a supervisory fee as they are the ones who do the inventory of the forest resources and also supervise and help measure the volumes of timber that have been cut. From August[102] to December 1999 commercial timber logging was taking place in Njelele 3 (Ward 14). The commercial exploitation of Mukwa and Teak was highly resented by the people in Chemwiro-Masawi especially considering that it was ill timed as it was also during the summer season when most crops are growing in the fields. A number of people tried in vain to stop the heavy machinery and equipment from destroying

[101] *Ko muchiri kutakura pfuti semurikuenda kuhondo seiko?*

[102] Timber logging in the area under Chief Njelele area began in June 1999 (Ms Chidzonga, Gokwe South RDC, Acting Campfire Co-ordinator).

crops in their fields but they were reminded that the RDC has power over trees - even the ones they had been reserving.

Despite the disappointments the people felt that maybe this could be a blessing in disguise in that it would enable the people to have access to funds through the co-management arrangement which called for the sharing of resources through *their partnership* with the FCZ. The green gold was seen as an important source of *real revenue* and not proceeds from grass cutting, which would not be used for bigger projects. The Masawi people saw part of the proceeds going to the development of their school whilst the Chemwiro community saw their share going towards the Chemahororo Clinic. The RMC chairman further raised the people's hopes and won their support when he said he was going to make sure that the Masawi School gets the RMC funds (School Meeting of 14 January 2000).

The people of Chemwiro-Masawi made a representation to the FCZ, not through the RMC, but through a village head and to the RDC on why they were not benefiting from forestry products yet the same district was involved in the Campfire programme. The RDC argued that Ward 14 (Njelele 3) was not a Campfire ward, which made them ineligible for the dividends under the Campfire programme. Moreover, the district understood Campfire to be encompassing wildlife - not forestry resources despite the acronym encompassing all natural resources (Communal Area Management Programme for Indigenous Resources - Campfire). The timber dividends issue was debated in a full council meeting.

The Masawi people argued to their councillor that they needed the money for development of their school. When they realised that the council was not forthcoming and they were receiving letters from debt collectors advising them to settle their school furniture bill they then directed the Midsec Investigation Services Debt Collectors (Final Demand Letter dated 22nd February 2000) to the Gokwe South RDC which they argued had to use the timber revenue to settle the outstanding debt. The RDC felt that it was now cornered. The RDC grudgingly agreed to helping Masawi School but argued that they had no money so they were not in a position to pay back the community. The tripartite argument is still raging on. An earlier interview with the Acting Chief Executive, Mr Mandibaya on 26

October 1999 indicated that the RDC was going to give a certain percentage of the timber revenue towards the school but he had no clear time span under which this was going to be done. The Acting Campfire Co-ordinator confirmed his statement.

> Masawi School is going to be one of the schools to benefit from commercial timber logging. It will probably get something but there are still some *logistical issues* to be sorted out (Acting Campfire Co-ordinator, Ms Chidzonga, Interview of 16 November 1999, Italics added).

At the time of the final demand from the Debt Collectors, the total amount owed had gone up to $88 477.81. An interview with Mr Chikede who is the councillor for the Njelele 3 (Ward 14) on 10 December 1999 indicated that the Gokwe South RDC had tentatively said it would give 25% of the logging timber proceeds to the villages where logging would have taken place. He said he would have wanted the share going to the communities to be raised to 80% of the total revenue collected from commercial logging.

Co-management in Chemwiro-Masawi seemed to be advocating for the management of resources without benefits. Murphree (1991) points at the need to have both resource use and management. Murphree (1991) further argues that resource use without resource management is not sustainable and that any attempt to establish resource management without resource use is likely to be futile.

Roper and Maramba (2000) in the mid-term evaluation of the co-management initiative argue that government policy and the legal framework is not conducive for co-management.

> In Zimbabwe, community-based forest management is not a concept acknowledged in the official forest policy or in the Forest Act. In fact, the current forest policy is quite traditional in its scope, addressing the issues of maintaining and protecting the forest estate, reforestation and afforestation, promoting research and education, and developing forest industries and markets based on sustained yield forest management. These are very valid objectives for a national forest policy but there is no specific mention of community-based forest management or managing forests to meet community needs (Roper & Maramba 2000:10).

Having looked at commercial timber logging, the next section looks at dead wood collection.

7.22. Dead wood Collection

In Chemwiro-Masawi RMC the dead wood collection arrangements were similar to the ones in Batanai. Chemwiro-Masawi was however unique in the sense that there were still more pockets of vegetation cover within the communal lands as compared to Batanai. Firewood could also be illegally collected from the neighbouring Chemagora Small Scale Commercial Farming (SSCF) area, which was not under FCZ administration. The boundary with the reserved forestry was also distinctly marked by the Gokwe-Kwekwe main road, which made it easier to monitor illegal firewood collection.

7.23. Grass Cutting and Administration

The Chemwiro-Masawi RMC has been administering grass cutting since 1996. The RMC has been faced with a number of people who are refusing to pay their permit fees with others resorting to collecting either grass or broom grass illegally. This has been made more difficult due to the difficulties of enforcing the rules by the RMC, which seems to be developing cold feet. According to the RMC Chairman, people prefer to do other activities, which are more relevant to their livelihoods rather than attend to the unproductive co-management issues.

7.24. Medicines

Collection of tree parts such as leaves, roots or barks is not permitted in terms of the co-management arrangement. However a number of traditional healers have covertly continued to collect their medicines in the Mafungautsi forest. The strategy is to make sure that you are not caught. Mrs Kapamba, a member of the Zimbabwe National Traditional Healers Association (ZINATHA) (interviewed 1 March 2000), argued that as members of ZINATHA they should be allowed into the forest to collect essential medicines in view of the escalating cost of conventional medicines and the non-availability of some of the medicines in the clinics and hospitals. The situation, she argued, has been exacerbated by the advent of Acquired Immune Deficiency Syndrome (AIDS). She argued that traditional medicine collection mechanism such as barking on the east and west sides of a tree ensured that the tree would survive and would be available for future generations.

Another traditional healer interviewed on 25 November 1999 who declined to be named also confirmed this view. He also pointed out that he was not a member of

ZINATHA but it was in his interest to make sure that forestry resources are not destroyed, as they are a source of his medicines. Chief Njelele further pointed out that it was traditionally believed that if you let the tree where you collect medicine die, it would be a bad omen for the patient (Interview of 19 November 1998). He strongly felt that ZINATHA should be permitted to go into the forest for purposes of collecting herbs and medicines. Permission under the escort of the FPU would not work due to the secrecy nature of most healers, as they would not want anyone else to discover the source of their herbs. However some traditional healers such as Mr Magucho argued that they were collecting all the medicines which they needed within the communal lands (interviewed on 17 January 2000). Cavendish (1994) lists a number of trees and their sacred uses in Zimbabwe. Mubvumira (*Kirkia acuminata*) is used for talking to ancestors, whilst Muchakata (*Parinari curatellifolia*), Mukamba (*Afzelia quanzensis*), Mupfura (*Sclerocarya birrea*) are used for rainmaking and talking to ancestors and Chitarara being used for providing shade on the graves (*cf.* McIvor 1989; McGregor 1995).

7.25. Bee-keeping Initiatives: Who benefits?

Chemwiro-Masawi has 30 beehives, which have not yet been commercially exploited as no honey has been harvested for the benefit of the community. The emphasis on FCZ - local relations in the above analyses may also misleadingly portray the co-management project as an arena exclusively pitting the state against local interests. Co-management can be an arena in which heterogeneous local interests are argued out simultaneously together with the overbearing interests of trans-local constituencies. For instance, a consortium of 10 business people, in 1999, approached the FCZ Provincial Manager and the RMC chairperson for Chemwiro-Masawi for a piece of land in the Mafungautsi Forest area for apiculture.[103] A portion of land measuring 4 900 square metres was excised and allocated to the group for the establishment of some 1 500 beehives. The FCZ Provincial Manager endorsed the agreement on the understanding that it was a genuinely community-backed development, but the arrangement happened to short-circuit the Project Co-ordinator who was away at the time. The FCZ reversed the agreement, ordering the community to take over the fenced area, and to reimburse the business people. Local

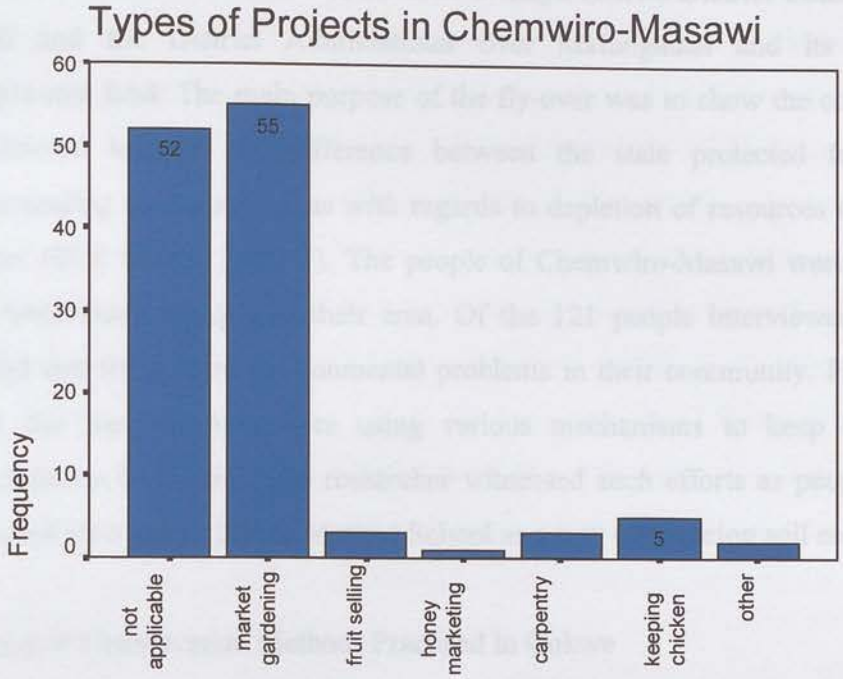
[103] Ribot 1999:23 points out that decentralisation attempts may "reinforce the very structures of unequal privilege they (the enterprises) seek to upset" (*cf.* Dove 1993).

communities quietly ignored the order – their priorities were in developing Masawi School and Chemahororo Clinic. It was ascertained, meanwhile, that the RMC chairperson had allegedly been bribed in the deal. It was the rest of the community's feeling that the chairperson should solely be held accountable for reimbursement since he alone had been responsible for the penetration and capture of "their" project by the business elite. Moreover, their funding priorities were on Masawi School and Chemahororo Clinic.

7.26. Powers over Financial Resources

The Chemwiro-Masawi people wanted to embark on other income generating projects for which the FCZ did not give its blessings. A questionnaire survey conducted on 121 households in Chemwiro-Masawi showed that most people had no interest in bee-keeping. Figure 8 shows that out of the total of 121 respondents interviewed, 50 said they were not involved in any income generating activity. Of those involved in income generating activity 55 (41% of the sample) said that they were involved in market gardening as the main income generating project - outside the mainstream farming, as shown below:

Figure 8: Types of Projects in Chemwiro-Masawi



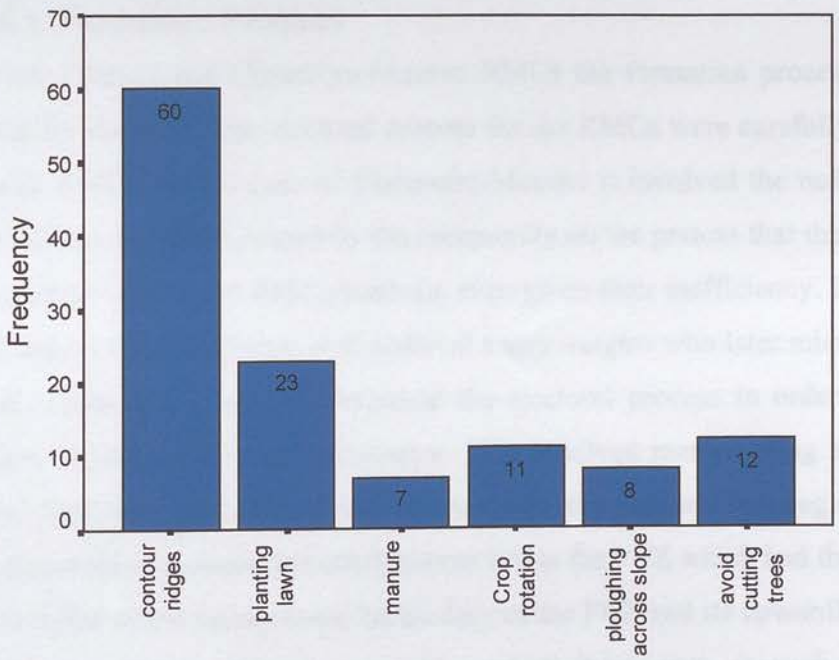
One respondent identified honey marketing as an important source of income, an activity that was promoted by the FCZ. Even the "illegal" fruit selling was considered to be a more important source of income than bee-keeping. The question then is: Why did FCZ promote bee-keeping?

7.27. Environmental Destroyers

The FCZ's impression on why the villagers should not be treated as equals with their own indigenous knowledge system was pretexted on their superior technical knowledge. In the workshops attended by the researcher it was constantly made clear that the main basis for designating the forest was on ecological grounds so as to reduce the amount of siltation getting to Zambezi River where the Kariba Hydro Electric Project is situated. The Mbumbusi, Sengwa and Lutope have their sources within the Mafungautsi Plateau in Mafungautsi Forest. The people of Gokwe were aware of the reduction of forest cover. There has not been any explanation on the impact of the forced removal of people from areas such as Rhodesdale into an ecologically fragile region of Gokwe and how this might as well have contributed to the reduction in vegetation cover; the whole issue had to be put in its political

economy context. Just before the implementation of the co-management began in Mafungautsi the FCZ chartered a light aircraft in March 1993 which flew the traditional leaders, councillors, the then Cheziya-Gokwe District Council Staff, FCZ staff and the District Administrator over Mafungautsi and its neighbouring communal land. The main purpose of the fly-over was to show the councillors (and traditional leaders) the difference between the state protected forest and the surrounding communal areas with regards to depletion of resources and vegetation cover (FCZ March 1994: 7). The people of Chemwiro-Masawi were aware of the environmental changes in their area. Of the 121 people interviewed 115 (95 %) noted that there were environmental problems in their community. Figure 9 shows that the local farmers were using various mechanisms to keep environmental degradation in control. The researcher witnessed such efforts as people in Masawi covered up a gully close to Masawi School as a way of reducing soil erosion.

Figure 9: Conservation Methods Practised in Gokwe



As shown by figure 9 all the respondents were using various methods of conservation with most of them using contour ridges (49%). Interviews with Chief Njelele also showed that traditional leaders were still making people pay fines for destroying natural resources. The researcher also attended traditional court sessions

where some villagers were ordered to pay fines to the chief or headman for violating traditional resource management rules. This however does not remove bias and favouritism by traditional leaders in exercising their duties as guardians of natural resources (*cf.* Mandondo 2000; Mukamuri 1995). In some instances traditional leaders "manipulate social controls so that they are inclusionary with respect to cost but exclusionary with respect to benefit" (Mandondo 2000: 71). Some residents used the religious arguments to justify the need to protect natural resources which man is holding in trust for God. This was illustrated in Mbuya Manquma's sermon from the book of Genesis at a sermon attended by the researcher in Masawi Village (African Apostolic Faith Mission Service held on 11 March 2001). Mr Siwela, a church elder, had previously cited Genesis 1 verse 26 (Interview of 27 December 1999). These two sermons pointed out that God created the earth and it was important that man looks after the natural resources entrusted to him by God. Having looked at the co-management arrangement in both Batanai and Chemwiro-Masawi the next section is a comparative analysis of the two case study RMCs.

7.28. Batanai and Chemwiro-Masawi: a comparative analysis

7.28.1. Formation Process

In both Batanai and Chemwiro-Masawi RMCs the formation process was clearly driven by the FCZ. The electoral process for the RMCs were carefully manipulated in both RMCs. In the case of Chemwiro-Masawi it involved the nullification of a vote of no confidence passed by the community on the pretext that there was a need to maintain the trained RMC members, even given their inefficiency. In Batanai, the FCZ approved a committee with political *heavy weights* who later misused the RMC funds. Later they were to manipulate the electoral process in order to sideline a female considered *counter productive*. This involved manipulating the number of votes that she got. These two were both created at the beginning of the implementation process. In both instances it was the FCZ which had the power to set up the rules of co-management. In the face of the FCZ and its upwardly accountable RMC, the people felt they would contest their case through defying and undermining co-management's neat bureaucracy. Chemwiro-Masawi even tried to challenge the FCZ's choice of the RMC through the passing of a "vote of no confidence" in their RMC. This was subsequently overruled thereby further entrenching the RMC's upwardly accountability.

7.28.2. Constitution

In both RMCs the constitution was adopted without any amendments. This was also true of all the RMCs in the co-management project. The operational framework was the same as they were all governed by the FCZ. Rules were beyond the comprehension of both RMCs as they were all written in English.

7.28.3. Commercial Timber Logging

Chemwiro-Masawi was unique in the sense that there was commercial timber logging going on in the communal area. This gave an opportunity for contestation between the local people, the FCZ and Gokwe South RDC. Commercial timber logging by Mockdale Company gave an opportunity to the local community to claim proceeds from timber. In terms of the Communal Lands Forest Produce Act of 1987, the proceeds are supposed to go to the RDC with FCZ getting a supervisory fee. The community was further confused in that they felt that co-management, which was joint management and ownership, was supposed to make them equal partners in deriving benefits from timber rather than being restricted to some peripheral benefits such as thatch and broom grass. The arguments and debates between the community, represented by the traditional village head, not the RMC, and the need to pay for the school furniture led to the community directing debt collectors to the RDC so that payments of the amount owed had to be paid by the RDC. This forced the RDC to accept to pay some proceeds but without any serious commitment as to when and how it was going to be done. This further exposed the RDC's double standards in that the same RDC that was engaged in Campfire on one hand disputed the fact that Campfire was about all the natural resources - not wildlife only. The machinations of the Chemwiro-Masawi Community could partly be attributed to the machination of one of the village heads who was also the secretary to the late Chief Njelele. The same village head was also a member of the Zimbabwe Farmers Union (ZFU)'s provincial committee. He also boasted of having visited Sweden as part of a group of farmers who wanted to assess the operations of farmers' organisations in other countries. He was a former teacher who lost his job when the government removed untrained teachers. The need for benefiting from commercial timber logging was also raised in Ngomeni and Muyambi Wards during the 1993 Ward Workshops. The people pointed out that the Arusha Timber Company, another concessionary

company that operated in Gokwe earlier on, should not have benefited alone from the concessions, as the community felt it was entitled to the benefits.

7.28.4. Bee-Keeping within Mafungautsi

Chemwiro-Masawi was in a unique position in that they were allowed to set up a bee-keeping project at the edge of the Mafungautsi forest. The project, however, seem to have been hijacked by the elite, most of whom were not resident in either Chemwiro or Masawi. This group of ten business people had co-opted the RMC chairperson as the eleventh member. The people saw his co-operation with the business community as a betrayal of their interest. This is probably one of the reasons why a vote of no confidence in the RMC was passed. The vote of no confidence was however over-ruled by the FCZ. The group of business persons further had a vision of starting a dairy project within the Mafungautsi forest. However, the community did not want to buy out the business people as they felt they could use their money better, elsewhere.

7.28.5. Availability of Firewood

Whilst the issue of firewood was important for both areas, the Batanai area was in a more desperate situation as compared to the Chemwiro-Masawi area which was closer to the SSCF area, which was also reasonably endowed with trees. This meant that the people had a choice of getting firewood from the small scale farming areas. There was much more vegetation cover within Chemwiro-Masawi RMC. This can be explained by the fact that a number of people were moved from the Mafungautsi Forest and forced into a small part of the Batanai area, which resulted in more people occupying small pieces of land. However, Chemwiro-Masawi did not have such a history and the influx of people has not been to the same degree as in Batanai. Batanai used to be closer to Nyaradza which used to house former detainees. This was an area where the former political detainees were kept, in a remote area far away from the rest of the people whom they were not supposed to contaminate with their radical political ideas. This was mainly in the 1960s. The firewood shortages are therefore more pronounced in the Batanai area than Chemwiro-Masawi area. In both instances people continued to collect firewood "illegally" as the co-management arrangement was strategically designed to keep firewood collection to the minimum. It did not dovetail well into the labour demands for households in

both RMCs. Faced with such a scenario; even RMC members were allegedly involved in the "illegal" or unsupervised firewood collection.

7.28.6. Financial Resources

The Chemwiro-Masawi RMC was the first to question why there was no provision for RMC funds from money from CIDA. The RMC, mainly through the traditional village leader, was of the opinion that project funds should benefit the community in Chemwiro-Masawi RMC. The communities were supposed to benefit directly from the funds rather than have all the funds going towards the acquisition of FCZ vehicles and equipment. Such echoes came more from Chemwiro-Masawi than from Batanai RMC. The Mafungautsi Project spent a budget of Z$8 246 422 on operational costs. Capital costs amounted to Z$4 606 243. This totalled Z$12 852 665 of which most of it directly benefited the FCZ alone. The RMCs received less than one percent of the total co-management budget. This meant that co-management benefited the FCZ more than the local community. The FCZ got vehicles, office equipment, FPU houses at Lutope, lodges and equipment for use by the FPU.

7.28.7. Powers to hold Meetings

Both RMCs seem to rely on the FCZ coming and organising meetings. The FCZ would take the official minutes at these meetings. The issue of conducting meetings was outlined in the constitutions. The fact that this was not a negotiated constitution meant that many RMCs did not understand what was written in it. This then made the communities dependent on the FCZ even on issues, which were clearly stipulated in their constitutions. The constitutions seem not to have been user friendly as they were written in English, a language that alienated most of the people in both Batanai and Chemwiro-Masawi. In the event that they held meetings on their own, such meetings would not decide on any forestry decision without the FCZ's endorsement.

7.28.8. Accountability

Political or democratic decentralisation occurs when powers and resources are transferred to authorities representative of and downwardly accountable to local populations (Crook & Manor 1998; Agrawal & Ribot 1999). In both Batanai and

Chemwiro-Masawi RMCs the RMCs seem not to have been given much room to manoeuvre. As the two case studies have shown the new institutions do not seem to have been given any form of meaningful powers resulting in them being upwardly accountable to the FCZ.

The co-management gospel according to the FCZ was to be seen from the perspectives of ecological conservation. Mr Foyo (19 December 1995) pointed that the objective of the project was to conserve trees and natural resources in the forest. Mr Dzinoreva (the then District Administrator) pointed out that the people were accepting the gospel that they were preaching (20 December 1995). A respondent in Chemwiro-Masawi RMC area seem to have summed up the RMC business when he said, "RMCs are dying a natural death because the power was given to the RMCs and not the ordinary community people" (Mpofu, interviewed on 21 August 2001). Right from the conception of the co-management it looks like the FCZ was moving into co-management only as a way of resolving conflicts. At the beginning of the implementation of the project the first field officer to implement co-management said:

> The Forestry Commission controls the forest area and will continue doing so after the implementation of the project. It will maintain the role designated to them by the government. ...co-management is meant to minimise conflicts between the Commission and the communities, which normally lead to the destruction of natural resources (Mr Ngwenya, Forestry Commission Gokwe, 11 and 22 December 1995 cited in Nhira's Notes).

From this statement one notes that the co-management of forestry resources in Mafungautsi was not a negotiated arrangement but only had conservation objectives without the need to take on board the values and beliefs of the local partners in co-management. What is outstanding about the approach in Mafungautsi is how the social considerations for the local actors in the Mafungautsi area were often seen as what Hobart calls the "obstacles to rational progress" (Hobart 1993: 2). The FCZ tried to convince the people that destroying natural resources was illegal by citing sections of the Forest Act Chapter 19:05, Communal Lands Forest Produce Act 1987 and the Natural Resources Act 20:13 of 1996. Their explanations, using English terms, were probably not understood as the post - meeting interviews showed (15 March 2001).

The project co-ordinator argued that this was a resource sharing scheme NOT a co-management scheme. There was no management role for the communities. Management of the forest, it was argued, was still a preserve of the FCZ. The rural communities were compared to children in a household who were said to have no say in how the head of the household runs it - and probably one could add or *mis-runs it* (Interview of 13 February 2001). One of the traditional leaders in Chemwiro-Masawi, Mr Manquma, questioned why the donor funds were being used to acquire tractors and vehicles, which did not directly benefit the communities but FCZ (Focus Group Discussion of 15 January 1998).

7.28.9. Land Shortages

The underlying challenge, which comes out in both RMCs, is the issue of land. Most people feel that the FCZ stole their land (Headman Ndhlalambi 22 January 1998). He further pointed out that 7 of his villageheads were chased out of Mafungautsi Forest. The eviction of people from the forest also saw the Batanai people, who were originally under Chief Njelele, being moved to the other side to be under the Nemangwe Chieftainship.

Chikati, the Chemwiro-Masawi RMC Chairman, said that there was a need for a few people to be allowed to settle in the forest so that they will be monitoring illegal activities from within the forest. He said he felt that there were very productive pockets of soil in the forest area (15 January 1998). All such moves were an attempt to address the land issue. Natural resource issues are interlinked with the availability of land. By August 2001, 49 households had settled in Mafungautsi Forest with a total of 180 households said to have "registered" with the new Mafungautsi village head. This also coincided with the government's controversial land invasions (*cf.* Moyo 2001; Marongwe 2002). This sounded like the death sentence for co-management in Mafungautsi.

This Chapter has looked at the implementation of co-management in both Batanai and Chemwiro-Masawi RMCs. It concluded with a comparative analysis and commentary on the case study RMCs. The next chapter investigates the processes governing land cover change in and around Mafungautsi forest using GIS and participatory mapping.

Chapter Eight

An investigation of land cover change in Mafungautsi Forest, using GIS and participatory mapping

8.0. Introduction

This chapter investigates the processes governing land cover change in and around the Mafungautsi Forest Reserve in Zimbabwe. The last chapter mainly looked at the social and economic outcomes of decentralised forestry management. This chapter further aims to demonstrate some of the driving forces for such land cover loss processes. Through the use of GIS and participatory mapping, trends towards landcover changes will be demonstrated and the general decline of landcover in the communal area and its potential impact on the demand of forestry resources within Mafungautsi will be illustrated through the use of maps. This study site, as previously explained, lies at the interface between the state and communal property regimes. Land cover change was analysed using aerial photography for 1976, 1984 and 1996 within a Geographic Information System (GIS). Perceived change and its causes were investigated through governmental data sources, participatory mapping and interviews with the local community and forest guards. It was found that whilst forest cover within the reserve has remained constant, there has been a steady decline in forest cover outside its boundaries. This decline, a result of agricultural expansion and demand for building materials and firewood, was perceived as more pronounced by local farmers than the FCZ.

In the last decade, the established view of land cover change in Africa has been reappraised. For much of the last century, environmental degradation (loss of forest cover and soil erosion) were held to increase linearly with population density and measures were put in place to combat such changes (Tiffen, Mortimore & Gichuki 1994a, 1994b; Bassett & Bi Zueli 2000). In Zimbabwe, for example, forest reserves were gazetted to protect river catchment areas through the removal of human population. More recent work in Guinea, however, has shown that the relationship between population density and land cover change is more complex (Fairfield & Leach 1996). In the longer term, cyclical expansion and contraction of forests may take place as agricultural land is abandoned and then recolonised. "Crisis narratives" of environmental history have also been challenged by further work in Cote d'Ivoire

(Bassett & Bi Zueli 2000) and Kenya (Tiffen, Mortimore and Gichuki 1994a, 1994b).

Previous research (Elliot & Campbell 2001) has also questioned the simplistic assumption that a reduction in percentage tree cover necessarily leads to greater scarcity of woodland resources. Within Zimbabwe, Scoones & Wilson (1988) have shown that biomass production per hectare may actually increase as tree cover diminishes when remaining woodlots are managed by pollarding or coppicing. Similarly, Wilson (1989, 1990) showed that the abundance of fruit trees did not decline after deforestation, because fruit trees were selectively conserved and their value recognised by smallholders.[104]

Specific responses to resource shortages in miombo woodlands are often complex and may vary between locales. Privatisation of resources has been documented as one response to scarcity in Zimbabwe's smallholder areas (Scoones & Wilson 1988; Mukamuri 1995), but elsewhere communal arrangements have been re-instigated in the face of natural resource shortages (van den Brink & Bromley 1992). Campbell Grundy & Matose (1993) found that the choice of tree species for construction and firewood became less selective as resources became scarcer. As firewood availability declines, harvesting arrangements change and men often become more involved in its collection (Campbell, Grundy & Matose 1993; Mapedza, Wright & Fawcett 2003). These findings imply that responses to perceived scarcity of natural resources may be complex and unpredictable.

Many of these more recent studies have relied on participatory methods to explore local understanding of environmental history. However, findings from Participatory Rural Appraisal (PRA) can be affected by the composition of participant groups and group discussions influenced by one or two dominant individuals. To overcome these inherent weaknesses, Goebel (1996) has suggested that techniques such as PRA should best be deployed in conjunction with other methods, so that findings

[104] In Mafungautsi most farmers left a lot of fruit and non-fruit trees in their fields as a mechanism for getting nutritional supplement, cash income through selling of fruits and addition of soil fertility through litter fall in the Kalahari sands of Mafungautsi (*cf.* Wilson) for Chivi whilst other researchers have noted the same practice elsewhere in Zimbabwe (Robinson 1953; Murphree 1969; Wilson 1989).

from technical and social research methods may subsequently be triangulated. One such complementary technology is GIS, which has previously been used with participatory methods to explore land cover change in Ghana and Zimbabwe (Elliot and Campbell, 2001). A second complementary technique is participatory mapping, in which maps or aerial photographs form the basis for group discussion of environmental change or land ownership. Aerial photography has successfully been used in interviews with illiterate farmers in Nepal (Mather *et al.* 1998), Cote d'Ivoire (Bassett 1993), and in educational studies of young children from several countries (Blades *et al.* 1998).

This chapter explores land cover change in and around Mafungautsi Forest Reserve, part of the Zambezi River catchment area in central Zimbabwe. Changes in land cover between 1976 and 1996 are assessed using historical aerial photography and land use is described using participatory interviews centred on the 1996 aerial photographs. Comments from these interviews about underlying drivers of land use change (population, soil fertility, and enforcement within the forest reserve) are compared, both between respondents and with other data sources. The reasons for the adoption of this strategy were two-fold. Firstly, whilst remote sensing studies can identify changes in *land cover*, the changes in *land use* that lead to vegetation change are very difficult to determine without follow-up fieldwork on the ground. Secondly, vegetation change as perceived by land users may differ from actual vegetation change and be an important determinant of behaviour among those using local natural resources. Participatory mapping techniques were therefore used to elicit information from residents regarding land use and perceived land cover change.

Changes in land cover were examined through a combination of:

(i) Participatory Rural Appraisal (PRA) (Chambers 1994; IIED 1995; Goebel 1996),

(ii) Semi-structured interviews using aerial photographs,

(iii) Analysis of historical aerial photography within GIS,

(iv) Analysis of secondary data relating to rainfall, crop yields, and arrests,

(v) Follow-up interviews with FCZ staff and groups of youths, women, and the elderly.

The above methods were used as previously outlined in Chapter 5.

8.1. Results

A clear-cut perceptual division between the forest reserve and the communal land pervaded all the interview sessions and is therefore reflected in the presentation of results here. The pattern of land cover change in both areas as recorded through interviews with the FPU and communal farmers and through aerial photography analysis are shown as Annex 2. This annex also compares perceived changes in land use and its drivers according to these interviews and governmental data.

8.1.1. Land Cover Changes within Mafungautsi

The FPU guard interviewed felt that tree cover within Mafungautsi had remained largely unchanged in the last 10 years, although pole-poaching had reduced tree cover in some peripheral areas of the forest reserve. At Batanai, the farmers' group felt strongly that tree cover had increased within Mafungautsi over the past ten years, whilst opinions at Chemwiro-Masawi were divided, some perceiving increased tree cover and others a decrease. The PRA interview with the women's group at Batanai suggested that they were even more aware of the reduction in tree cover than the male farmers' group.

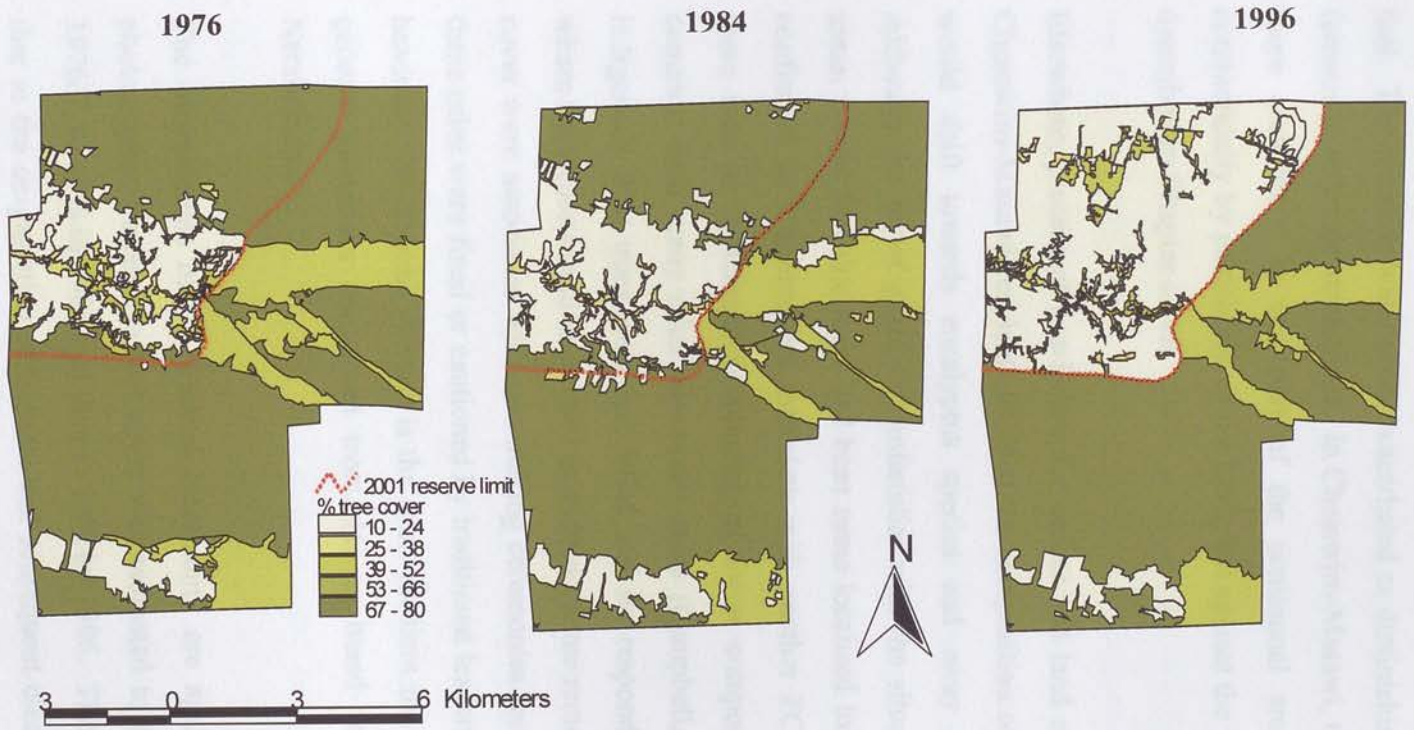
Analysis of aerial photography for the Batanai area supported the observations of farmers within this RMC. Within Mafungautsi forest reserve, tree cover declined from 68% in 1976/7 to 66% in 1984, but then rose again to 71% by 1996. Some 1.5% of this change may be due to positional inaccuracy in delineating the reserve boundary, as estimated from the RMS errors in Table 14 below.

Table 14: Root Mean Square error statistics (in metres)

year	Image no.	RMS error	No. control points
1976	1	22.7	16
1976	2	19.4	14
1976	3	15.4	15
1984	1	12.0	13
1984	2	25.4	15
1984	3	25.3	15
1996	1	23.9	12
1996	2	28.7	12
1996	3	23.0	11

Figure 10 illustrates the changes in land cover within Batanai. During and immediately after the independence war, several communal farmers encroached into the forest reserve as political insecurity led to the suspension of enforcement of its boundaries. The land cleared by the "settlers" can be seen on both the 1976 and 1984 aerial photographs in Figure 10. By 1996, the northern area of encroachment had largely reverted to forest, whilst the southern encroachment area remained as grassland.

Figure 10: Changes in Land Cover in Batanai



8.1.2. Land Cover Changes in Communal Areas

The Batanai group felt strongly that tree cover was diminishing rapidly within their village, because of pressure for agricultural land, building materials, and wood for fuel. The situation was further exacerbated as diminishing crop yields forced some farmers to cultivate streambeds. In Chemwiro-Masawi, the situation was somewhat more complex. In one part of the communal area, trees had been felled commercially by permission of the RDC, but against the wishes of local residents as described in Chapter seven.

Elsewhere, piecemeal tree-felling for timber and land clearance was taking place. Chemwiro-Masawi residents felt that the composition of tree species on their land would shift towards eucalyptus species and away from indigenous species. Although the forest guard felt unfamiliar with the situation within the communal areas, he did feel that there had been some localised loss of tree cover. This was confirmed in a subsequent interview with another FCZ representative, although there was no systematic monitoring of forest composition and biodiversity. In common with many other communal areas (Campbell, du Toit & Attwell 1989) indigenous fruit trees were not felled and no respondents envisaged a situation where fruit trees would be at risk. In addition, some remaining patches of vegetation cover were associated with rain making ceremonies (*mutoro).* Those who violated these rules were fined or cautioned by traditional leaders such as Chief Njelele and headman Ndhlalambi. Nevana is the spirit medium for the Gokwe area who gives general guidelines on sacred trees. He is based in Gokwe North RDC, in Nembudziya.

The observations of the Batanai community are again supported by the aerial photography. Percentage tree cover was estimated to have declined from 51% in 1976/7, to 47% in 1984 and then to 14% by 1996. This large decrease was mainly due to the de-gazetting of Batanai and subsequent clearing of land for cultivation and homesteads by immigrants. As shown in Figure 10, in 1972 a section of forest was de-gazetted and legal occupation by smallholders began. By 1996, virtually all of this forest had been felled, whilst elsewhere in the communal area, further losses of tree cover took place, albeit on a smaller scale.

Whilst many land use drivers had been identified prior to fieldwork, several themes only became apparent during the semi-structured interviews. These themes included the importance of declining soil fertility (Kalahari sands) and crop yields in driving land clearance in the communal areas and the perceived effect of land cover changes on rainfall patterns and stream flow.

8.1.3. Fire

The group of farmers at Chemwiro-Masawi held that the frequency of fires within the forest reserve had declined following co-management, principally because of community enforcement and the imposition of steep fines for offenders. In contrast, the FPU felt that the burning regime had remained unchanged over the previous 10 years. In Batanai, fire was regarded as a useful means of managing vegetation. Not only did regular burning of vleis make hunting of game easier, but it also reduced the tick population. Burning therefore combated cattle disease and encouraged grass re-growth, thus improving grazing potential. Fires were occasionally started as a means of collecting honey. Fire was also considered a means of settling scores with the FPU and a useful tactic for distracting forest guards for those wishing to enter the forest reserve illegally. The Chemwiro-Masawi group felt farmers there realised that persistent burning reduced thatch and broom grass quality, whilst the Batanai group considered burning a means of improving grazing quality for cattle. The FPU regarded vlei-burning as more frequent in the Batanai area, with vleis closest to the communal areas being most at risk. In contrast, an earlier study at Mafungautsi (Matose 1994) found that people starting fires were reprimanded, because fires were often followed by invasion of a noxious weed known as *mukauzani*, which is poisonous to cattle

All respondent groups agreed that livestock numbers had not changed substantially in the last ten years. It was felt that there was a natural limit to the number of cattle that could graze within Mafungautsi. All respondents reported that cattle graze unsupervised within Mafungautsi, but concentrate largely in the vleis and grassy areas once occupied by "settlers". Approximately 20 000 cattle are estimated to enter the forest every year (Matzke 1993).

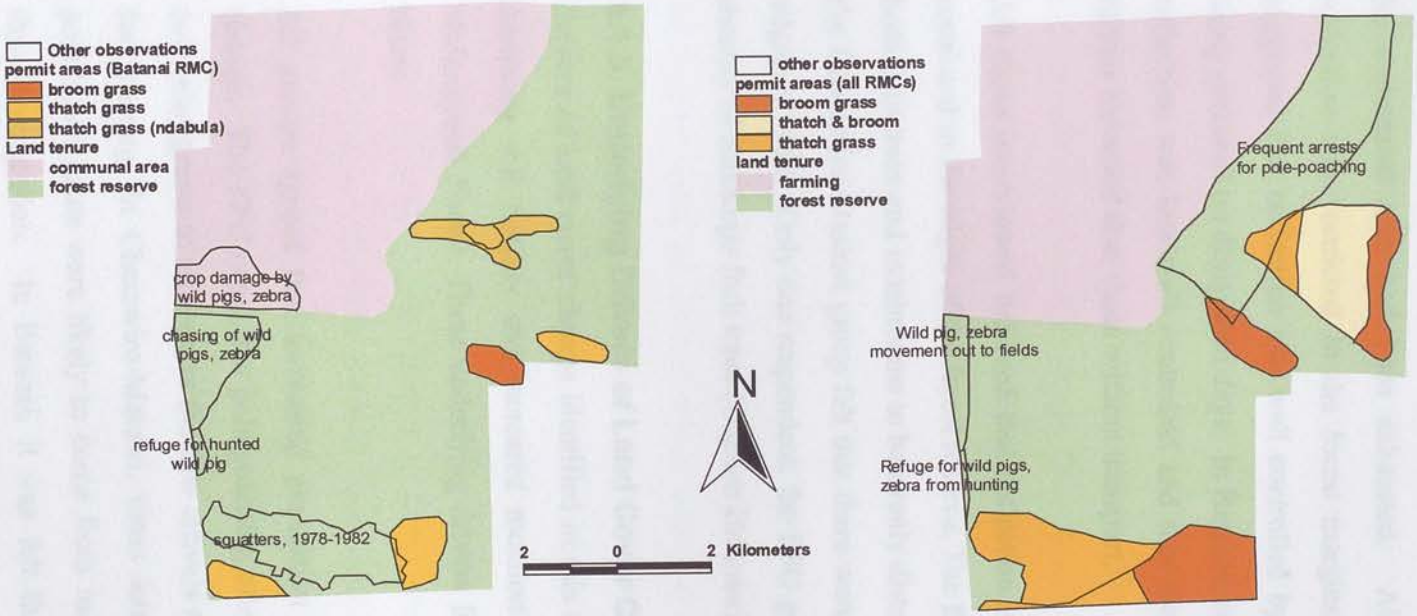
Views about tree planting within Communal Areas differed between the three interviews. In Batanai, farmers believed that there was little benefit to be derived from planting trees, partly because of the long delay before any wood could be harvested. Some also believed that the FCZ might repossess communal land afforestated with eucalyptus and were suspicious of planting schemes. In Chemwiro-Masawi, it was felt that uptake of planting was high because of free seedlings and pockets provided by FCZ. However, some people expressed concern about limited land availability for tree planting. Subsequent field visits suggested that only a few individuals had planted eucalyptus extensively.

All respondent groups showed clear awareness of their designated permit areas for thatch and broom collection, and there was a broad correspondence between the areas identified by the forest guard and those identified by villagers (Figure 11). In Batanai, very little thatch and broom was available in the communal areas, and this led to some illegal collection of inferior quality *Ndabula* grass for thatch from the forest margins, in addition to grass collection from permit areas. In Chemwiro-Masawi, however, thatch and broom grass grew within the communal area and so local residents had less need to visit Mafungautsi regularly to collect grass for their own huts. This meant that the local RMC could grant permits to outsiders from neighbouring communal areas such as Nkayi, thereby guaranteeing income for the RMC. It was anticipated that local residents would continue to use thatch and broom from within the VIDCO in the future, but that demand for thatch and broom from other areas - and with it the value of permits - would increase as natural resources elsewhere became depleted.

8.1.4. Timber and Firewood Collection

Pole poaching was considered to be most intense near the Bulawayo road (See Figure 11), in the forest areas closest to communal settlement.

Figure 11: Activities within Mafungautsi Forest



A similar decrease in pole cutting with distance from settlement was observed in a previous study of basal area plots within Mafungautsi (Vermeulen 1996). Those interviewed felt that this area was especially prone to pole poaching both because homesteads were located close to the reserve boundary and because pole trees within the communal area had been exhausted. All respondents felt that firewood collection was restricted to the forest margins. The Chemwiro-Masawi group suggested that collection was well controlled by the RMC, with dead wood only being gathered on designated days. In Batanai, respondents suggested that firewood collection was less well controlled and that those with scotch carts could forage further for wood than those without transport.

All those interviewed believed that collection of wild fruits and mushrooms was restricted to the edges of the forest reserve. The Batanai group of farmers considered both fruit trees and mushrooms to be evenly distributed throughout the forest, whilst the Chemwiro-Masawi group felt that there were slightly more fruit trees along the edges of vleis. Only one respondent, the FPU guard, identified an area with a high density of *mazhanje* fruit trees (*Uapaca kirkiana*).

8.1.5. Underlying Drivers of Land Cover Change

Drivers of land cover change identified in this study included population increase, declining soil fertility and increased monitoring of illegal activities within the Mafungautsi Forest. These underlying drivers for land cover change are discussed below.

All groups agreed that increasing population was a major cause of vegetation change. The FPU noted that pole poaching often increased following the arrival of new immigrants to an area, as the new arrivals sought materials within Mafungautsi for housing. In Chemwiro-Masawi, those interviewed felt confident that future population gains were likely to come from natural increases in population rather than immigration. In Batanai, it was felt that natural population increase was slowing down because of HIV/AIDS, but immigration was continuing. One respondent suggested that anyone leaving his or her home temporarily would risk losing land and housing to a newcomer, implying that immigration was perceived as ongoing.

The PRA and resource mapping exercises revealed details of migrant characteristics and the timing of migration episodes. Following tsetse eradication, the original *Shangwe* people inhabiting the area surrounding Mafungautsi were joined by migrants from elsewhere in Zimbabwe, attracted by its cotton-growing potential. On discovering that this area was not very productive and now densely crowded, some of these migrants moved further north to areas with less sandy soils known as *Chidhaka,* such as Madzivazvido or Chireya. Although cotton income later attracted immigrants to the area, some were forcibly moved by the colonial government as a result of the Native Husbandry Act of 1951. This act allocated certain areas to white settlers and many of the current Batanai and Chemwiro-Masawi residents were forcibly evicted from Rhodesdale. After Rhodesdale was designated "Crown (state) Land", its population was evicted in stages during the 1950s and 1960s (Ndanga 1987; Nyambara 1999). Others migrated from densely settled rural areas such as Zimuto, Chivhu, Chirimuhanzu, Gutu, Bikita, Gweru, and Nkayi, as a result of land shortages (Mehlo 1970; Nyambara 1999). Some immigrants were retrenchees from the Zimbabwe Iron and Steel Company (ZISCO) near Kwekwe, about 130 kilometres south of Gokwe centre. Many immigrants to Gokwe tended to be wealthier than the original *Shangwe* people and some were former civil servants, such as teachers. This meant that they had enough capital to buy inputs for cotton farming.

Declining soil fertility was cited as a major cause of land hunger in both RMCs. This is mainly due to the local Kalahari sandy soils, which are productive during initial cultivation but quickly lose fertility over time (Manyame, *per. Comm.* 2000). Most communal farmers historically countered this problem by cultivating extensively, but this is becoming increasingly difficult due to the shortage of virgin land. Indirectly, declining soil fertility increased pressure on the forest reserve by reducing the land available for planting eucalyptus within the communal areas. In Batanai, some farmers cultivated streambeds to overcome declining yields. In Chemwiro-Masawi, most farmers held that fertilisers did not improve yields in the predominantly sandy soils there and so even greater input availability would not counteract declining soil fertility. Such scepticism about fertiliser effectiveness was also found in an earlier study of Mafungautsi (Matose 1994).

Aside from the independence war, when lack of enforcement enabled migrants to settle in Mafungautsi, enforcement changes have also profoundly influenced land cover at other times. The group at Batanai felt strongly that the number of people arrested entering Mafungautsi had increased sharply in the last ten years. Not only were perimeter patrols more frequent, but offenders were now more likely to be prosecuted and fines had become more expensive. This stricter enforcement was the principal reason why the group considered tree cover within Mafungautsi reserve to be increasing; yet simultaneously decreasing in the surrounding communal areas.[105] This observation is supported by quantitative data on the number of arrests within the reserve, which rose from an average of 8 per year between 1991-94 to 16 per year between 1995-98. However, such prosecution figures are only a crude indicator of enforcement and may also reflect changes in poaching levels. The Chemwiro-Masawi group also felt that enforcement had become stricter, both because fines were more expensive and because the RMC were now involved in enforcement.

8.1.6. Discussion

Previous studies have examined land use and land cover change by combining remote sensing with a variety of interview techniques. In the UK questionnaires were used to assess the impact of farming on vegetation change (Potter, Barr & Lobley 1996), whilst in Ethiopia ecological time-lines were used to reconstruct histories of land cover change (Reid *et al.* 2000). In Kenya, interviews focusing on land use were conducted whilst walking along vegetation transacts with respondents (Mahiri 1997), whilst in Cote d'Ivoire group discussions with herders were used to identify the drivers of changes in savanna landscapes (Bassett & Bi Zueli 2000). In this study, semi-structured interviews were combined with participatory mapping using photo-mosaics. The advantages of this technique were that it yielded land use maps that could be easily geo-referenced and related to remote sensing data, whilst being sufficiently flexible to explore unanticipated themes that arose during

[105] It is also important to note that this could be as a result of the increased scarcity of trees in the communal area which has resulted in more people getting forestry products from Mafungautsi.

interview. It thus represents a promising addition to the range of interview techniques available for exploring land use and land cover change.

Participatory mapping revealed greater detail about the timing and causes of land cover change than aerial photo analysis alone. Previous studies have identified substantial variation in both socio-economic characteristics and vegetation in many of Zimbabwe's communal areas (Jackson & Collier 1988; Campbell, du Toit & Attwell 1989). Whilst this local variability was apparent in PRA and group interview data, this variability is not discernible from government data sources. For example, the interview data here suggested that in eastern Batanai, settlements were close to the forest margin, thus leading to greater crop damage by wildlife and pole poaching. Such local variations in settlement patterns are not apparent in census population counts, which are available for the whole of Batanai RMC only. Specific events that affected land cover and its drivers - such as the evictions that took place under the Native Husbandry Act - could only be identified through interviews on the ground. This lends weight to the need to marry technical methods with participatory approaches (*cf.* Elliot & Campbell 2001).

However, one difficulty with the participatory mapping technique lies in distinguishing the relative impact of discussion group composition versus geographical location on interview results. In this study, the different results in the Chemwiro-Masawi and Batanai interviews were in part due to geographical differences between the two RMCs and partly due to differences in group composition (i.e. the presence of senior community representatives and RMC members in one group, but not in the other). In a rural developing country setting, where respondents may be travelling some distance to attend interviews on an allocated day, standardising group composition across different sites is in practice difficult to achieve (Goebel 1996).

8.1.7. Land Cover Change in Mafungautsi

The FPU perceived land cover change somewhat differently to the smallholder farmers living on the forest reserve margins. Whilst many of the farmers felt that tree cover within the reserve had increased, the FPU felt that tree cover was stable with localised losses due to pole-poaching. The farmers were also more acutely

aware of the loss of tree cover in the Communal Areas than the FPU. Such differences in perception of land cover change have also been found in other studies that combined interviews with remote sensing in West Africa. Fairhead and Leach (1996) described how technical officers may interpret local developments so as to justify their own interventionist policies. The differing perceptions of land cover change between the Batanai farmers and the FPU could be due to the latter's need to maintain their status. By suggesting that forest cover in the reserve was unchanged, the FPU could justify their presence as a barrier against forest degradation. In the Gokwe study sites, women were more aware of a reduction in vegetation cover, probably due to their key role in firewood collection and the need to walk further as fuel wood became scarcer. This awareness of forest cover among women concurs with previous work (Clarke, Cavendish & Coote 1996), which found that women knew of uses for a greater number of tree species than men did.

Underlying tensions between many of the key actors at Mafungautsi became apparent during the course of the study. Some neighbouring communal farmers had cultivated land within the reserve during the period of weak enforcement from 1978-1983[106] and subsequently been expelled. This group still felt entitled to the gazetted land within the reserve and resented the presence of the FPU in enforcing the reserve's boundaries. When co-management was introduced, it was seen as a mechanism for resolving this conflict (Matzke 1993; Nhira *et al.* 1998). However, the FPU clearly felt that the new RMCs contributed little to enforcing regulations within the reserve, whilst one RMC was criticised for not distributing income generated through co-management more widely within the community.

Given the evidence presented here, it seems likely that the communal areas surrounding Mafungautsi will experience ever-declining tree cover, unless participatory action is taken. Even without any local population increases, this trend seems likely to continue because of soil fertility decline and because of felling by remote actors. If current land use drivers continue to operate, the remaining communal woodland is likely to shift in composition towards fruit trees and eucalyptus as felling continues and some farmers take up incentive schemes for tree-

[106] The period is often referred to as "*madiro*" (*cf.* Matose 1994; Moore 1994).

planting. Within Mafungautsi, increased pole poaching seems likely without greater economic incentives for local communities to respect the reserve's boundaries. The gazetting of Mafungautsi resulted in local communities perceiving it as state property and the 'withdrawal' of traditional forestry conservation practices within the gazetted area. Imposed solutions, such as the rural afforestation programme (Whitlow 1988; Elliot 1991; McGregor 1995), appear unsustainable in the long term and there is need for local solutions adapted to the particular social, economic and political circumstances in Mafungautsi. This may be achieved, one may argue, through the creation of a downwardly accountable RMCs in the co-management arrangement as pointed out in previous chapters.

Chapter Nine

Devolved forestry management in Zimbabwe: Reality or Rhetoric?[107]

9.0. Introduction

This chapter is an overview of the research findings from Mafungautsi's co-management attempts in Gokwe South District of Zimbabwe. The chapter will be in the form of an overall assessment of co-management in terms of its inception, powers, accountability arrangements, local and non-local interactions and questions whether the Mafungautsi has resulted in co-management or co-ownership of the forestry resources. This research has demonstrated that decentralisation of forestry resources in Mafungautsi is "supply led" rather than "demand driven". It then concludes, based on the evidence from Mafungautsi in Zimbabwe, that co-management does not seem to have produced the pronounced intentions, as it has been rhetoric rather than reality. The conclusion further outlines key themes emerging from the study. These key themes will then inform the research recommendations in chapter 10.

Devolved forestry management in Mafungautsi seems to be a serious challenge due to its mismatch with practice on the ground. The ambiguous roles of the FCZ as player, referee and coach in the Mafungautsi co-management arrangement contradict its supposed co-equal partnership status, sending signals that make co-management unsustainable. The presumption of a co-equality status on the part of the participating communities is also fundamentally contradicted by the equivocal nature of certain FCZ roles and training (*cf.* Palit 1993, 1994; Schug 2000; Sundar 2000 for the Indian case). An example from the Chemwiro-Masawi area portrays them not as partners, but as villains helping bolster the extractive legitimacy of the Gokwe South RDC. The RDC had, in line with the provisions of the Communal Lands Forest Produce Act of 1987, awarded concessions for the commercial extraction of hardwood timber from the peasants' fields. Under the same act peasants are not entitled to the benefits of commercial use of forest resources available in

[107] After Lind & Cappon (2000)

their areas. FCZ employees played a supervisory role during the operation. This compartmentalist approach does not augur well with the Mafungautsi people, as their lives are not compartmentalised, as the cutting of timber in their fields will have consequences on their participation in the co-management (*cf.* Sundar 2000). This further raises questions on the contradictions in scientific forestry, which are not simply addressed by community participation (Klooster 2000: 283).

For any decentralisation attempt to succeed there has to be a downwardly accountable institution which will transform the interest of the people into reality. The decentralisation framework that has been used in the Mafungautsi co-management seems to indicate that the RMCs are upwardly accountable to the FCZ. As demonstrated earlier in both Batanai and Chemwiro-Masawi RMCs, RMCs are more upwardly accountable to the FCZ than they are to their constituency. The issue of upwardly accountability is clearly illustrated in the Chemwiro-Masawi RMC where the people's attempt to hold the RMC to account through passing a vote of no confidence was reversed by the FCZ.

Before the establishment of RMCs one of the main activities which used a significant amount of resources was the chartering of a plane to fly leaders from Mafungautsi over the gazetted forest and communal areas so that they could appreciate the differences in land cover between the two resource regimes. From the community's point of view, these were resources, which could have been put to better use. People on the ground could easily tell that there is more tree cover in the gazetted forests than the communal areas as demonstrated by the participatory mapping exercises in Batanai and Chemwiro-Masawi RMCs. The fact that traditional and RDC leaders were flown was seen as a mechanism to bribe them into the co-management rather than serve any other purpose.

Murphree (1990) argues that it is through the demonstration of benefits that communities are willing to incur management costs. These costs have to be clearly linked to the benefits. This does not seem to be the case in Mafungautsi. Unfortunately, the socio-economic benefits to the participating communities are not central to the Project's goal and objective (Roper & Maramba 2000).

> In Mafungabusi, it is still questionable whether there are enough potential economic benefits to attract the communities to assume the responsibilities of co-managing the resource. Where forests have limited economic potential, there is the need for economic diversification to lessen dependence on the stressed forest resource (Roper 2000: 10).

"Community-based forest management embraces the notion that forests should serve people and that the rural population should have a formal role to play in forest management"(Roper & Maramba 2000: 9). Watts (1989) underlines the fact that deforestation is a result of contestation over property rights and authority over forests.

> The team is of the opinion that the term "shared forest management" as used by Commission staff is actually "shared forest access" because, as will be discussed later in this report, there has been really no shared management to date (Roper & Maramba 2000: 10 *cf.* Palit 1994; Shah 1995; Banerjee 1996).

Sundar (2000) similarly questions the "jointness" in the Indian co-management approach (*cf.* Sivaramakrishnan 2000). The research findings for the Mafungautsi Co-management in Gokwe will be analysed within the context of the decentralisation framework. The analysis will look at the inception of the co-management, the powers exercised and the accountability arrangements. The following section looks at the inception of co-management within the decentralised framework.

9.1. Inception of Co-management and the role of donors

The FCZ needs to be applauded for embarking on the co-management project in the first instance. The co-management arrangement was a top-down initiative since it was a FCZ decision backed by CIDA funding. Whilst some Participatory Rural Appraisals were carried out, the issues raised in these workshops were not incorporated in the implementation process (*cf.* FCZ 1994).[108] This was not only top down at the local and national levels but it was a global concept that, through CIDA (Globalisation syndrome, *cf.* NRC 2002), filtered its way to the local level as a part of a participation discourse. Such international interventions might be mis-conceived and may result in inappropriate solutions (*cf.* Munslow *et al.* 1988; MacGregor

[108] This could approximate to Arnstein (1969)'s third rung of informing the people of decisions which have already been made which is some form of tokenism in the ladder of citizen participation.

1995; Elliot & Campbell 2001).[109] In the Mafungautsi peasants were told that in order to benefit from donor funds they had to embrace the co-management arrangement. Justification of the co-management was that it would improve the lives of the rural communities. In crafting of the co-management one needs to take cognisance of the fact that 'history matters'[110] as it shapes the present (Watts 1995; Sivaramakrishnan 2000: 82). In the Indian case, Shah (1995/6), a forest officer, argued that the decision for Joint Forest Management was impulsively taken due to pressure from the donor organisations.[111] Smoke & Lewis (1996) note that developing countries have often been driven into decentralisation initiatives by donors. Most such initiatives, he argues, have failed, as they did not take into account the local circumstances as the donor imposed such initiatives. In Nepal WWF and the World Bank were said to have "initiated" community forestry in areas such as Mbugu. There is a serious need to re-appraise the role of international donors in the management of natural resources such as forestry. This has to be tailor made to suit the local circumstances - not having a prototype that is duplicated across different continents without any consideration for the specific local circumstances. The following section analyses the powers devolved within the co-management in the Mafungautsi area.

9.2. Powers Devolved

Devolved natural resource management may be assessed in terms of the various powers that are devolved to the lower level. The following section looks at the different webs of power and assesses which actor was exercising which powers? This section also looks at relational powers in respect of other institutions. A number of development agencies and government departments have often been trapped in a new institution syndrome where they try to introduce new institutions disregarding existing traditional institutions - which are often perceived as being "inherently weak" (Seabright 1993 cited in Cleaver 2000: 364). The powers devolved to the RMCs through the co-management project were highly "prescriptive" without any

[109] See Ferguson (1990) for CIDA's role in Thaba Tseka Grazing Scheme and Nightangle (2003) for the role of the World Bank and WWF in the Mbugu District of Nepal.

[110] This was also the title of a Lecture given by Terence Ranger at the University of Zimbabwe on 31 May 2001 - any development initiative has to be placed in its historical context in order to be relevant.

[111] *Cf.* Eaton 2001 on the impact of donors on decentralisation in Argentina and Philippines and Ekoko (2000) on the impact of World Bank and French politicians on the reform of the forestry sector in Cameroon.

room for the local communities to experiment with new ideas. The decision over the allocation of the financial benefits from permits was "centralised" to the FCZ, which had to make decisions on how the funds were invested by the communities. The fact that the FCZ approved only environmentally benign activities meant that all RMCs ended up "choosing" to invest in the bee-keeping projects.[112] Field research in both Batanai and Chemwiro-Masawi showed that most people preferred other income generating projects such as market gardening rather than bee-keeping as previously highlighted in earlier chapters.

9.2.1. Legislative Powers (The Power to create rules)

The legal framework governing forestry resources has not been changed. The Forest Act of 1996, the Communal Lands Forest Produce Act of 1987 and the Rural District Councils Act of 1988 have not been amended. Whilst it is arguable that in some instances policy formulation or change may be informed through practice but in this instance the practice has not changed the formulation process (Dasgupta 2002; Dyson 2002). The Rural District Councils Act of 1988 is not complementary to the attempts to decentralise forestry management. The fact that co-management is restricted to the minor forest products meant that communal farmers have not benefited from commercial timber logging that has been taking place in areas such as Chemwiro-Masawi RMC area. Valuation exercises carried out at the interface zone have demonstrated that local communities tend to put a lower value on minor forest products compared to timber and land for farming. Commercial timber revenue tends to generate larger amounts of revenue as compared to the minor forest products. Co-management in this instance seems to have marginalized the people to accessing "less valuable" benefits from the Mafungautsi.

[112] This approximates to what Mackenzie (2000) felt were agricultural and environmental narratives that were serving the interests of state power in Kenya. In the case of Mafungautsi, co-management seem to have been aimed at consolidating FC's control over the local communities. How far they succeeded in achieving this objective varies from one RMC to another. MacKenzie (2000) further demonstrates how scientific objectivity was used to define a 'crisis', which would then justify the need for state intervention. It is important to note that interpretation of environmental history has its own set of competing genealogies and agendas (Moore 1998: 380). On the un-preciseness of the 'science' "Estimates of stock-carrying capacity, of waste land and availability are only estimates....rather than exact figures and precise knowledge (Ranger 1989: 247) quoting Confidential, Assessment Committees, Inspector's Comments, 10 August 1954, s.160.5/25/55.

There are efforts to synchronise the legislation governing the management of environmental legislation. The Environmental Management Bill of 1998 has been on the drawing board for a very long time. This piece of legislation intended to remove the contradictions within the environmental laws. Not much headway has been made considering the time that has elapsed since the first bill was drafted for consultation. Given this scenario, it means that co-management is still operating within the old legal framework, which does not recognise its existence. The legal framework at national level would give signals to the RMCs at a local level as to how they are supposed to operate. The fact that the enabling act, The Forest Act of 1996 or the Communal Lands Forest Produce Act of 1987 do not recognise them, means that they are not legal entities. This means that whatever rules they may come up with, will be quashed if they contradict these pieces of legislation. In the event of a legal conflict with the FCZ, RMCs are in a weaker position as they are only armed with RMC constitutions which have no legal reinforcement in the form of a piece of legislation. The constitutions further give the FCZ powers to make the final decisions on issues decided upon by the RMCs.[113] In the Indian context Chopra had similar findings: "JFM projects in most states have been largely restricted to downgraded forest lands that offer villagers few immediate income-generating opportunities. Even given this restriction JFM programmes are often not participatory in the sense of an equal partnership between the forest administration and village residents" (Chopra 1995: 1481). This seems to have been the case with co-management in both Batanai and Chemwiro-Masawi RMCs.

9.2.2. Power to make decision over resource use

The FCZ, as demonstrated through the case study sites of Batanai and Chemwiro-Masawi RMCs, wielded power over the resources and their use. It was the FCZ that had control of the disbursed donor funds. The FCZ further had the final say on the revenue collected by the RMCs. This resulted in the investment in bee-keeping by both RMCs despite its unpopularity.

[113] *Cf.* Acheson & Brewer (2000) on how the Maine Lobster industry had a genuine co-management arrangement through powers devolved through the Lobster Zone Management law.

9.2.3. Power to implement and ensure compliance

Decentralised natural resource management has been argued to result in positive social, environmental and ecological outcomes due to its key tenets which give the local communities power to make decisions. It is often argued that once people genuinely make rules and decisions, such decisions are more likely to be binding, resulting in reduced costs of enforcing those decisions (Ostrom 1990, Stern *et al.* 2002). Decision-making powers were vested in the FCZ. The local RMCs were empowered to make decisions, which were subject to the approval of the FCZ. This was mainly due to the fact that the FCZ approved all the decisions that were made by the RMCs, especially where financial resources were involved. As previously demonstrated, the FCZ wielded a lot of sway and influence in terms of what investments were made using the RMC funds. In most instances, they "encouraged" RMCs to invest their income in environmentally benign activities such as bee-keeping despite this being the least popular activity as demonstrated by the survey in both Batanai and Chemwiro-Masawi RMCs.

The legal framework that governed gazetted forests had not been changed and this meant that, legally, the FCZ was still responsible for the day to day management of the Mafungautsi Forest. The constitutions were a creation of the FCZ and the then Ministry of National Affairs and Employment Creation (MNAEC) without input by the RMCs themselves. This meant that these constitutions were tailored to protect the interests of the state. The constitutions were written in a language, which alienated the majority of the people who could not speak English. The two case studies of Batanai and Chemwiro-Masawi demonstrated that FCZ wielded powers in the co-management initiative. The local people were, however, not totally powerless, as they inserted their rights through using the Mafungautsi Forest products illegally and at times professing ignorance of the co-management initiative.

9.2.4. Powers to adjudicate

The issue of adjudication over the forestry offences has been one of the dilemmas for the new institutions of the RMCs. The RMCs, which were promoted by the FCZ, are now almost like local "policing agents" reporting any violation of the Forest Act to the FCZ through the FPU. This means that offenders end up going to the magistrate's court in Gokwe where they may serve months in prison or alternatively,

pay fines. This form of adjudication is far removed and in total contradiction with the traditional system which meant that the people had to go to a village head (*sabhuku*) first, then up to the headman (*Sadunhu*) and the Chief (*mambo*) in order to resolve natural resource management decisions. The new institutions of the RMC had no legitimacy in the eyes of the local residents, as it was an extension of the government that was trying to reach beyond its grip (Murphree 1991 *cf.* Mandondo 2000). This resulted in practical implementation challenges for the FCZ in Mafungautsi. Some traditional leaders began to question why they were now being by-passed by the FCZ rule enforcement mechanism. In instances were RMC funds had been misused the FCZ confusingly told the RMC to try and resolve it through their traditional structures. This was an attempt to pass on an unpopular role to traditional leaders.

The passing of the Traditional Leaders Act of 1998 and its implementation, which began in Gokwe in 2000/1 period also, introduced some new dynamics and contestation. The traditional leaders were in some circumstances the land allocation authorities by default. The VIDCOs were the lowest administrative tier in local governance as previously shown. The Traditional Leaders Act desolved the VIDCOs and replaced them with the traditional villages, which are headed by the traditional leaders. This hand-over and take-over period resulted in some power struggles, as people wanted to stamp their authority - whether real or imagined. This further put a strain on RMCs as some traditional leaders felt that RMCs should be seen as one of the development committees proposed by the Traditional Leaders Act and should therefore report directly to the responsible traditional leader and not link directly with the FCZ. This further took a new twist when one traditional village head and his community passed a vote of no confidence on "their RMC" and elected a new one. This machination was nullified by the FCZ who felt that the trained people should remain in the RMC despite the fact that they no longer had the mandate of their electorate.

The issue of traditional leadership has also helped to manifest some local power dynamics and struggles in the Mafungautsi area. Soon after independence it was a struggle between the traditional leaders and the newly elected VIDCOs which sought to replace the traditional leaders. In 1998 the government passed a new piece

of legislation which sought to give back power to the traditional leaders who were perceived as having the authority and respect over the local communities unlike the elected VIDCOs and councillors. This was also done at the time the government's support was waning. The Traditional Leaders Act also introduced allowances for Chiefs and Headman. Promises were also made for allowances for the traditional village heads, who were already getting a percentage of revenue collected on behalf of the RDC. Tax collection by traditional leaders made them very unpopular during the liberation struggle, which ended with the first democratic elections in 1980. In Gokwe village heads were re-assigned the same unpopular mandate with an incentive of getting ten percent of the revenue collected in their village. Co-management arrangements, however, bypassed traditional leaders in favour of the magistrate's court at Gokwe Centre.[114] Having looked at the different forms of powers within the co-management arrangement, the next section will look at the accountability arrangements for the RMCs.

9.3. Accountability

Accounting for the participation of local communities in environmental decision-making, it is reasoned, will "promote local interest in sustainable use and mitigate practices considered harmful to the environment" (Lind & Capon 2001: 2). The new institutions are more upwardly accountable to the FCZ than to their constituencies. This has compromised their legitimacy in the eyes of the people. However, this does not imply that the local people do not have their own mechanisms of holding the office bearers to account for their actions or inaction. In the case studies it has been demonstrated that the people use various weapons of the weak (Scott 1985) which include the embeddedness of the leaders, arson, burning of the forest, social capital and witchcraft. In Chemusonde, an RMC outside the case studies, one RMC member had his hut burnt allegedly for his overzealousness in enforcing the co-management regulations. This would force the local leaders to be accountable to their constituency. However, this does not stop them from being upwardly accountable to the powers above.

[114] There are however, initiatives to bolster the authority of the traditional judiciary system in Zimbabwe (see The Herald 24 February 2003).

In the Mafungautsi case study the RMCs were more accountable upwards to the FCZ than to their constituency. The fact that the Chemwiro-Masawi RMC had a vote of no confidence passed against them and still had the FCZ protecting them against the wishes of the people further made them even more upwardly accountable. Once the new institutions had the feeling that they were cushioned against the electoral power (people power)[115] they were then more likely to do as their masters above (FCZ) wished rather than what the local communities wanted. This would further mean that people's local level concerns about the co-management arrangement would not be communicated to the FCZ. Even this discretion of removing unaccountable leaders through the ballot was not always available. Attempts by the people of Chemwiro-Masawi to pass a vote of "No Confidence'' in their RMC and elect a new RMC were nullified by the FCZ as previously illustrated. A woman who had been voted into the RMC lost through the FCZ counting. This counting "mistake" was deliberate as the woman was considered a troublemaker by the FCZ who was not supposed to be a member of the RMC. With such backing from the FCZ, this further alienated the RMCs from their local constituencies.

9.3.1. Accountability - Outcome Relationships

This component, in the Zimbabwean case study, looked at how access to resources and the benefits derived from them, as well as the use and management of natural resources, have changed under changing accountability regimes in the process of setting up decentralised and community-based natural resource management. This assessment was based on historical interviews about access to natural resources by various local groups (local ethnic, professional, gender, religious, age, income etc.) and changes in the environmental use and management practices. These changes are proxies for ecological change where ecological change cannot be measured (changes to patterns of access to land, investments in related services such as forestry extension, changes in the kinds of management practices that are in use, etc.).

In the co-management initiatives in Gokwe South RDC, there seemed to be negative environmental outcomes as demonstrated in both Batanai and Chemwiro-Masawi

[115] The term people power was popularised when the Philippines President Joseph Estrada was ousted in a mass demonstration in 2000.

RMCs. Poaching for both trees and wildlife seemed to be on the increase. Stealing from the forest was condoned even by traditional leaders who felt that people were stealing from "Mugabe's Forest". This meant that the forest reserve boundary also acted as a boundary for the end of traditional conservation norms and practices. The use of snares was often blamed as a dangerous strategy as it harmed livestock, but not that the practice was unacceptable. Forest fires increased despite co-management. The "invasions" into the reserved forest, with 49 households staying in the forest by August 2001, introduced a new level of local level response in line with the "land invasions" enunciated at national level. About 180 households had registered to return to their old homelands (*matongo*) within Mafungautsi. This is probably going to accelerate the extraction of forest products as fields for farming are opened up. Interviews with the people who had moved into Mafungautsi demonstrated their tenure insecurity, as they were still aware of the previous waves of evictions from Mafungautsi forest. Most of them pointed that they were previously evicted from the forest hence the need to go back to "their old homes". The land issue in Zimbabwe is a more complex issue, which is arguably beyond the remit of FCZ alone.

9.4. Local and non - local interactions

Co-management as a form of decentralised forestry management is introduced on the premise that new conservation practices will be adopted at the local level. The whole debate of the interaction and counter interaction between new ideas and traditional knowledge systems that have been in practice does not seem to be addressed in the Mafungautsi case study. The assumption was that the local people have not been having their own forms of natural resource use and adjudication (Lind & Capon 2001; *cf.* Long 1984). Decentralisation within the natural resource sector, as in a broader sense, may follow different trajectories (Agrawal 1999:15). Decentralised forestry management is supposed to be about the democratic devolution of power (Lind & Cappon 2001). One key element in co-management arrangement is the question of institutional interactions (Agrawal 2002; Stern *et al.* 2002; Ostrom 2002). Institutions in co-management, just as in the commons debate, interact at a vertical and horizontal levels (Stern *et al.* 2002). "Outcomes are a result of interactions at different levels and scales or cross scale institutional linkages"

(Berkes 2002: 295).[116] These levels also result in soft and permeable boundaries (Peters 1994) or overlapping boundaries (Moore 1998). The assumption in Mafungautsi was that RMCs would be able to operate independently of other institutions. However, their introduction further introduced complexities and dynamics on the institutional terrain.

9.5. Co-management or Co-ownership?

The Mafungautsi co-management scheme raises key questions on the approach towards co-management. The concept of co-management, which is supposed to be co-ownership (Borrini-Feyerbend *et al.* 2000; Hobley 1996) between the local communities and the state, seem to have been undermined in Mafungautsi. This move towards co-ownership was a strategy to avert the tragedy of the state property. Implementation in Mafungautsi has demonstrated that instead of averting the tragedy of the state property, it has actually accelerated the degradation of the forest resources. In Mafungautsi people have continued to cut down trees which are owned by the "government" and not by the local people. The state's half measures have further alienated the people from co-operating with the state. The little measures attempted, unimpressively, have gone a long way to demonstrate to the local communities how much they are missing.[117] Now they even know how much logging concessions are generating from areas such as Chemwiro-Masawi yet they do not get a small percentage of the benefits. Their benefits have been restricted to the minor forest products that a number of researches have shown have low values. This may be contrasted with the Campfire approach in Zimbabwe that has demonstrated the benefits to the local communities (Matzke & Nabane 1996; Hulme & Murphree 2001). One needs to note that in some cases benefits have not trickled down to the lowest level. Some benefits have been hijacked at the RDC level as some researchers have demonstrated (Murombedzi 1992, 1994; Alexander & McGregor 1996, 2000; Sibanda 2001) and at times RDCs have used heavy handed methods to push through the conservation agenda (Alexander, McGreggor & Ranger 2000; Hammar 2001; Hughes 2001a). But nevertheless, under the Campfire Programme, the communities have been able to derive more benefits, which have

[116] Murphree (2000) further "frames the discussion with an examination of the theoretical and practical dimensions of boundaries, borders and scales in commons management."

[117] Murphree at the IASCP 2002 conference cited similar comments on Campfire when it was still in its initial stages by those who opposed it.

resulted in higher benefits accruing to the Village Campfire Committees (VCCs). The VCCs have powers through their village meetings to decide on what they want to invest their funds in without unnecessary interference from the RDCs.

In other areas such as Masoka, schools and clinics have been built. However, it is important to note that some researchers have argued that this has led to the withdrawal of the state funding, as the local communities are perceived as being self-sufficient. Some researchers further argued that the need to embark on Campfire by some RDCs has resulted in the violation of human rights as people are bulldozed (herded) into the programme by their co-beneficiary, the RDC (Alexander & McGregor 1996, 2000). One should note that in a number of circumstances, Campfire has positively contributed not only to the welfare of the local communities but towards the sustainable management of natural resources. Individual incentives are generally the most important factor in the transformation of organisational structure into outcomes (Wilson 2002: 347; *cf.* Williamson 1986; Pfeffer 1995; Runge 1992; Ostrom, Schroeder & Wynne 1993; Seabright 1993; Wade 1988; Cleaver 2000). This seemed to be the missing link in the co-management attempt in Gokwe South RDC.

Decentralisation has often been seen as a magic bullet that solves the environmental degradation through introducing new "participatory" institutions (Mugabe's Foreword in Lind & Capon 2001). Introduction of decentralised forestry management demands that the implementers have a vision and understand that the outcome of the policy process is a result of an interaction between external and local ideas. The outsider ideas are not imposed on a passive and empty local community. The final outcome is a result of the contestation and competing interests of the various actors. This therefore calls for the need to be flexible and make adjustments in order to suit the dynamic and changing contexts (*cf.* Ferguson 1990). This seems not to have been seriously considered in Mafungautsi. Co-management was seen as a way of buying time, whilst perpetuating the traditional "fortress conservation."

9.6. The Rationale of Bureaucracy

The co-management initiative in Mafungautsi seems to have set up a neat bureaucracy on paper. However, the political economy on the ground seems to be

producing results which might not have been expected. Peasants are innovative and find ways of circumventing the bureaucracy in order to meet their own needs. Thus, some people in Batanai manipulate the situation, illegally collecting products—including game—from Mafungautsi when the FPU is not in the vicinity. Since the whole circumference of the 82,100-hectare forest cannot be effectively monitored all the time, some villagers also sneak in and out of the forest without paying permit fees. Similarly, peasants tend to hand over smaller bundles of thatching grass to the RMCs and retain the bigger ones. Moreover, the bundles of grass given to the RMCs are not always sold as intended. The cost of transporting and selling the grass at Gokwe Centre has meant that no RMC member has been willing to sell brooms or thatching grass away from their villages. The bundles have simply been dumped at the homesteads of the RMC members, in most cases the treasurer or the chairperson. This has resulted in lots of bundles rotting. In Batanai 115 bundles of thatching grass were rotting at the treasurer's homestead in April 2001. The situation was similar at the homestead of the Chemwiro-Masawi RMC chairman, although the exact number could not be counted due to the advanced stage of rotting. Some informants alleged that the RMC members were now using rotting of grass as an excuse for misrepresenting the actual number of bundles sold during auditing, while some RMC members were reported to be using the grass before it even begins to rot.[118] These are clear illustrations of how the rationality of co-management does not necessarily coincide with that of the local people, who manipulate the rules to suit their own purposes - which Scott (1985) calls the weapons of the weak.

9.7. Co-management Impact

Co-management has been theorised to increase the amount of co-operation in the management of natural resources which is more likely to result in sustainable resource management (Tietenberg 2002). Some empirical support for this proposition in implemented programs is beginning to appear. For example, one study of compliance behaviour in the United Kingdom fishery (which was not an individual transferable quota) found that individuals who felt more involved in the management system had a statistically significantly lower probability of violation

[118] Grass collection now seems to be a lucrative venture, as most RMC members want to use their homes as grass collection centres in order to benefit if the grass "rots." Those whose homes are not

(*cf.* NRC 2002). In Mafungautsi there is little involvement of the people with RMCs being viewed as an extension of the FCZ. RMCs could not hold meetings in the absence of the FCZ. RMCs were further asking to get FCZ badges and uniforms. This then increases chances of violation of rules. The case of animal traps, previously cited, demonstrates that most of the people were against the method used as it endangered livestock, but not the practice itself.

9.8. Enforcement

Successful enforcement program requires a carefully crafted set of sanctions for non-compliance. Penalties should be commensurate with the danger posed by non-compliance. Penalties that are unrealistically high may be counterproductive if authorities are reluctant to impose them and people are aware of this reluctance (Tietenberg 2002). The arrangement in decentralised natural resource management should be such that its "economically viable, environmentally sustainable and socially acceptable" (Dore & Chafota 2000: 2). Once the arrangement meets all these criteria, it is then more likely to be easier to enforce the rules. The balance of evidence from the commons literature of the past few decades is that neither purely local-level management nor purely higher level management works well by itself. Rather, there is a need to design and support management institutions at more than one level, with attention to interactions from the local level upwards and vice versa. (Berkes 2002). In the Mafungautsi co-management the FCZ overshadowed the RMC as its involvement at the local level was going well beyond the need for oversight.

9.9. Holistic Approach to Decentralised Forestry Management

The implementation of the co-management initiative in the Mafungautsi area demonstrated the weaknesses of a sectoral approach towards co-management. The initial indications were that the co-management arrangement would be implemented jointly with the Gokwe South RDC, which is the land authority in Mafungautsi. However, the RDC seem to have been marginalised and the FCZ did not want many actors involved, as the resources would be spread thinly. However, when general development issues were raised in the RMCs, for instance, issues of schools, clinics and dip tank, the FCZ felt that such issues would better be addressed by the RDC. The RDC was not actively participating in the co-management arrangement. When

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designated as collection points do not cooperate fully in the RMC activities.

the Mid-term evaluation team was carrying out its evaluation the acting Chief Executive Officer pleaded ignorance of the co-management arrangement and confessed that he had been given the co-management documents by the FCZ prior to the evaluation team's visit. This clearly demonstrates the need to involve all the relevant institutions in natural resource management. The RDC, in terms of the Communal Lands Act of 1982 and the RDC Act of 1988, is the land authority in communal areas of Zimbabwe. This means that they are entitled to all the concession fees coming from communal areas. Since they were not participating in the co-management arrangement, they are not in a strategic position to be able to debate the issues of sharing the proceeds from timber concessions in line with the co-management arrangement.

A co-management agreement goes only part of the way to produce a viable arrangement. In Mafungautsi there seemed to be little incentive for the FCZ to share the power they held (Lele 2000; Berkes 2002). Longer term studies, such as those by Singleton (1998) & Kendrick (2000), characterise co-management, not as an end point, but as a process of mutual social learning in which each side learns from and adjusts to the other over a period of time) in Berkes (2002:304). Attempts by CIFOR in Mafungautsi through its Adaptive Collaborative Management might be a good social learning exercise which might help shape the direction of co-management in Mafungautsi. CIFOR could further play a facilitatory role between the FCZ and the Mafungautsi RMCs.

9.10. Conclusion

This chapter has looked at an overview of the research findings of the Mafungautsi study. It sought, based on the field evidence, to assess if the devolved forestry management was a reality or rhetoric? This was done by looking at the beginning of co-management, the different powers held by different actors, accountability arrangements, and the implication of the accountability arrangements on the social, ecological and environmental outcomes. It also further questioned whether in Mafungautsi there was co-ownership? It also looked at the rationale of bureaucracy, co-management impact and enforcement. Some of the emerging cross-cutting themes of this study are:

- Donors should meaningful consult local actors.
- Co-management bodies should be legally recognised.
- Some powers should be decentralised to co-management bodies.
- Forest management institutions should be downwardly accountable.
- Rural Communities should benefit from Co-management.
- Institutional arrangements should be relevant to the local context.
- Co-management should build on existing institutions.
- Land Redistribution needs to be addressed.
- The concept of State Property regimes for the forests should be re-visited.
- Women need to be better represented in co-management institutions.

Evidence from Mafungautsi's two case studies seem to demonstrate that co-management as a form of environmental decentralisation in Gokwe, is only rhetoric rather than reality. The next chapter expands the above themes in the form of recommendations and the way forward before concluding by looking at areas for future research.

Chapter Ten

Research Recommendations

10.0. Introduction

This chapter concludes by looking at the research recommendations and the way forward for decentralised forestry management. These recommendations are based on the field findings in Batanai and Chemwiro-Masawi RMCs. Suggestions are made in the form of recommendations in the way that co-management might be carried out. It is important to note that contexts are unique as well as being dynamic and these have to be underlying factors in any co-management attempt. Changes in power dynamics may entail changes in the approach, and in some instances, a total review of the whole co-management process. This should be an ongoing process rather than an event. The last section concludes through identifying areas for further research. In the Mafungautsi co-management the social political and economic environment are dynamic, moreso because Gokwe is a frontier region which has continued to see a number of immigrants coming into the district. This thesis questions the rhetoric of natural resource decentralisation in Zimbabwe through the co-management of forestry resources which, according to research evidence, is largely "supply led" rather than "demand driven."

10.1. Recommendations and the way forward

Co-management of forestry resources between the FCZ and the local people was a new paradigm in forestry management in Zimbabwe. Considering the long history of natural resource management in Zimbabwe, which was based on enforcement from above, through "fortress conservation," it was a welcome shift in the forestry discourse. The fact that the FCZ considered the need for co-management, for whatever reason, was a major paradigm shift within the forestry sector. It seems to have borrowed lessons of experience from the Campfire approach in the wildlife subsector. Campfire, by its definition refers to all indigenous resources, but it has often been perceived and primarily implemented on the lines of wildlife management or consumptive tourism. This view is changing as the Campfire program is diversifying into other ventures such as photographic safaris, tourist lodges and bird viewing. Campfire is also further broadening its horizons to include fisheries and forestry. The FCZ joined the Campfire Collaborative Group (CCG)

which comprises of agencies responsible for the implementation of the Campfire Program. These include Campfire Association (a grouping of all rural district councils in the Campfire Program), Ministry of Local Government, Rural and Urban Development, Department of National Parks and Wildlife Management (DNPWM), CASS at the University of Zimbabwe (Socio-economic monitoring and evaluation), Zimbabwe Trust (ZimTrust) (Training and capacity building), ACTION Magazine, African Resources Trust (ART) lobbying, public relations, World Wildlife Fund for Nature (WWF) for ecological monitoring and the Southern Alliance for Indigenous Resources (SAFIRE). These organisations all play different roles in order to successfully implement the Campfire programme in Zimbabwe.

This thesis set out to look at the impact of decentralisation of forestry management in Mafungautsi. The research aimed at assessing the powers devolved and accountability mechanism in decentralised forestry management. The main guiding thesis was that more downwardly accountable institutions are more likely to result in more positive environmental and ecological outcomes (Ribot 1999, 2000). More downwardly accountable institutions in the context of Mafungautsi were assessed within the co-management arrangement. The advocates for co-management point out that there must be a partnership between different institutions which would have realised that each player has a different role to play (*cf.* Lawry 1989; Murombedzi 1990). For any co-management to work there has to be clear definition of powers and responsibilities. In the Mafungautsi case study it was demonstrated that the FCZ assumed the role of being both a player and a referee resulting in the confusion which ensued. In other words, the FCZ ended up with an unenviable position of being a regulator and a partner in the co-management initiative. Table 15 below summarises the key recommendations before moving on to further discuss each recommendation.

Table 15: Summary of Recommendations

Summary of Recommendations
• Donors should meaningful consult local actors
• Co-management bodies should be legally recognised
• Some powers should be decentralised to co-management bodies
• Forest management institutions should be downwardly accountable
• Rural Communities should benefit from Co-management
• Institutional arrangements should be relevant to the local context
• Co-management should build on existing institutions
• Land Redistribution needs to be addressed
• The concept of State Property regimes for the forests should be re-visited
• Women need to be better represented in Co-management institutions

The first recommendation below looks at the role of donors and international finance in environmental and conservation discourses.

10.1.1. Donors should meaningful consult local actors

The FCZ, World Bank and CIDA initiated the Mafungautsi co-management. Funding of the co-management was provided by CIDA. As demonstrated in this thesis, CIDA helped shape the co-management arrangements through assistance in the designing of co-management in order to suit their proposal format and reporting structure. What ended up happening was the establishment of co-management as an international discourse without much regard for the local circumstances. A study tour to India was meant to allow the FCZ to "draw lessons of experience". Funding seems to be following a fashionable trend. In 1997, as pointed out earlier, the Department for International Development (DFID) was talking of funding a Shared Forest Management arrangement in Gwaai. This initiative seems to have been shelved since the withdrawal of international finance, including DFID, to Zimbabwe with the onset of the land invasions.

Donors and international financiers should try to be flexible and facilitatory. Development funds, where necessary, should be flexible in terms of local level implementation strategies as this will help promote positive environmental outcomes within the forestry sector. Donors should try to be intermediaries between the state agencies and the local communities. In some instances this could be done through third parties such as researchers who could assume the facilitatory role.

10.1.2. Co-management bodies should be legally recognised

For the partners to whom the powers to manage have been co-decentralised, there is a need for the passing of an enabling legal framework in order to allow for the recognition of the rights of the co-owners. In the Mafungautsi case the Forestry Act of 1996 did not recognise the co-management arrangement, as it was an internal arrangement without the necessary legal enforcement. This further compromised the local communities and their RMCs, as these had no legal mandate in a court of law. In terms of their constitutions, which were drafted by the FCZ and the MNAEC, the FCZ had the final decision in everything they intended to do. The co-management rights have to be guaranteed through the passing of legislation so that this is not seen as a temporary measure. The community's security and rights must be guaranteed through some legal instruments or legislation as there tends to be "no development without real (*legal*) rights" (Lagos Declaration on Land Rights 16 July 2002, word in italics added).

Constitutions are not even mentioned in either the Forest Act of 1996: Chapter 19:05 or the Communal Lands Forest Produce Act of 1987. This is almost a reflection of what is happening within the Campfire Programme where the appropriate authority status is given to the RDC and not the wildlife producer communities at ward or village level. This means that the lower tier units have no legal recognition in the management of local resources. It is only legally enforceable rights that should then be accompanied by responsibilities. Benefits and responsibility have to be matched otherwise there will be unsustainable management of natural resources (Murphree 1991). The fact that the most active 8 RMCs directly received Z$80 505 through permit fees whereas the FCZ got over Z$12 million showed the skewed nature of co-management benefits. The share for the community is less than one percent of the total potential funds and furthermore, this small amount was spent on activities

which the local people did not want. The co-management arrangement seems to have granted people peripheral rights, which are not legally enforceable. Government recognition is an important support mechanism, which will even contribute towards improved reinforcement (NRC 2002). Co-management should have legal backing through legislation. This will help reinforce the rights and privileges of all actors involved in the co-management.

10.1.3. Some powers should be decentralised to co-management bodies

The community partners, as represented by the RMCs, have often wondered what it was that they were benefiting. One field officer referred to the community members as "children" who are not supposed to have the same rights as an adult (FCZ). Policies might have started changing at higher level but it is still questionable if the officers at local level were at the same pace as their seniors at head office. It looks like some officers at a local level were expecting the local communities to make adjustments without them attempting to make any adjustment at all.[119] Peluso (1992) points out at the need to restructure forest bureaucracies in order to suit the demands of co-management. Whilst it is indeed true that communities and their FCZ partners do not have the same expertise, this should be seen as complementing each other. This will mean that they will all be bringing something into the co-management or partnership without one part feeling belittled. All actors involved should view co-management as a learning process. In the co-management in Mafungautsi there seemed to be an attempt to belittle whatever knowledge the local communities had.

With the benefit of history one might postulate that considering the way the FCZ has been operating as an enforcer of the "fortress conservation" approach, the co-management seems to have been too much of a paradigm shift for some of the officers who might still have been doing their "business as usual" approach. Old habits seem to take some time before they finally die. There was a need to make sure that the FCZ had embarked on some sort of change of their management style especially at the field or operational level so as to be able to practice and implement co-management in Mafungautsi. The perception seem to have viewed the local

[119] See also Nygren on the view of Costa Rican state officials on the peasants whose "lack of cultural awareness of the value of conservation has resulted in deforestation" (Nygren 2000: 24).

communities as perpetual infants and not partners who were bringing in their expertise, in their own right whilst the FCZ was also bringing in its own expertise as well. The forest management bureaucracies seem to be very slow in changing from its past authoritarian approach to a more enabling and co-management arrangement (Campbell 1992; Chopra 1995; Schug 2000).

When new institutions that are created do not have any powers and if they are viewed as the extension of a state bureaucracy's (FCZ) hand trying to reach areas where it could not reach, this will simply challenge the legitimacy of the "local" institutions such as the RMC. In the eyes of the local people these would be viewed as agents of the unpopular policing mechanism of the gazetted forest. In some instances, as demonstrated in the Chemusonde arson case, this simply makes the communities hostile to the partnership or co-ownership attempts. If they loathe the FCZ they may not openly demonstrate this but they will simply use their weapons of the weak (Scott 1985). Real powers have to be devolved to all the co-managing partners. The FCZ has to let go off real powers to lower level institutions. For this to be carried out effectively there has to be training for transformation within governmental agencies and departments so as to be able to cope with the changes in the power balances. This has to be assessed in the context of the local situation.

10.1.4. Forest management Institutions should be downwardly accountable

The main research question in this research is that more downwardly accountable institutions within the decentralised forestry management in Mafungautsi are more likely to result in more positive environmental outcomes. There are various mechanisms that the local communities can use in order to hold their leaders to "account" (*cf.* Ribot 1999, 2000; Economist 23 February 2002). These mechanisms will determine whether the new institutions will be upwardly or downwardly accountable to the local people.

In the Mafungautsi co-management initiative there seems to have been a more upwardly accountable institution than a downwardly accountable institution through the RMC. In Chemwiro-Masawi for instance the decisions made by the community such as the vote of "no confidence" by the Chemwiro-Masawi community

undermined the community' effort to try and hold the RMC to account for its non-performance to the local communities. The fact that the RMC owed its allegiance to the FCZ meant that it would make sure that it meets the needs and requirements of the FCZ which had the final say in whether they remained in office or not - NOT the people who had voted them into office. Ostrom (1990) (*cf.* Agrawal 2002) further points out in her institutional design principles that for any successful institutional management for natural resources the monitors and officials have to be accountable to the resource users. Whilst a number of accountability mechanisms are available to the communities, the mere fact these can be overruled by the FCZ undermines the effectiveness of these mechanisms. It is therefore important to devolve some real powers to the local level institutions so that they are more downwardly accountable to their local people or constituency.

This calls not only for the devolution of powers to local institutions - but further more, the institutions to whom power has been devolved need to be downwardly accountable to their constituency. It is only downwardly accountable institutions, which are more likely to result in positive social, economic and environmental outcomes.

10.1.5. Rural Communities should benefit from Co-management

Rural communities do have some transaction costs of the time spent on managing forests. The monetary gains from forestry are not as high as the returns coming from agricultural activities (Nhira *et al.* 1998). This has meant that the rural communities whose benefits were marginalised to the collection of minor forest products felt that the Mafungautsi land would be put to better use through crop cultivation. This further strained the relationship for the local community with the FCZ as their needs were not being met since they felt what they needed was land for cultivation. Individual incentives are generally the most important factor in the transformation of organisational structure into outcomes (Williamson 1986; Pfeffer 1995 *cf.* James Wilson 2002). Therefore sharing commercial timber logging proceeds will result in local people perceiving forestry as a competitive land use option (*cf.* Duffy 1997 for similar arguments within the wildlife sector in Zimbabwe). It is when communities get tangible benefits from a resource that they will sustainably manage it (Murphree 1991; Madzudzo 2000). Any co-management attempts should genuinely incorporate

the views of the local communities on benefit streams. If this is not genuinely done, co-management of forestry resources under co-management will be unsustainable.

At present natural resources legislation is a projection of the colonial legislation. There has not been any meaningful amendment to the Forest Act of 1996. By introducing co-management the FCZ feels it is doing a favour to the local communities. There should be meaningful participation of the communities if ever the co-management is going to succeed. The legal framework should allow for resource use rather than focusing on resource management only. Murphree (1991) points at the need to have both resource use and management.

The current legal framework does not allow for any meaningful participation of the communal people. In Mafungautsi, benefits to the RMCs do not include a share of the proceeds from commercial timber logging. The co-management arrangement has allowed the community to benefit from less lucrative products such as mushroom which seem to be of no interest to the FCZ. Some RMC members felt that they were allowed to cut thatching grass and graze their cattle in Mafungautsi so that the fire risk of the forest is reduced.

The approach where the FCZ tinkers with peripheral rights is not likely to result in sustainable environmental outcomes. What is needed is a true commitment to let the people meaningfully participate in the management and utilisation of Mafungautsi. Co-management needs to respond to the need of the people and participation should not be forced from above. According to Borrini (1990) "There is a difference between participating in the carrying out of the work and participation in the sharing of responsibility and decision-making"(Borrini 1990: 6).

It is ironic that there is no room for the communal partners to benefit from the dividends from the income from concessionaires. The FCZ's circular to the RDCs encouraged them to plough back about 15% of concessionaire revenue to the communities where logging would have taken place. This is being done in the footsteps of Campfire. There seems to be no meaningful co-management in Mafungautsi. It seems the state's principal objective is to centralise control over resources and to assert political authority over local interests and not create a new

and more effective resource management regime (Murombedzi 1994b). Co-management must demonstrate tangible benefits - not just peripheral benefits. The local people should be able to link the new management responsibilities with the benefits. If there are only burdens without benefits, co-management will not achieve positive environmental outcomes.

10.1.6. Institutional arrangements should be relevant to the local context

The issue of institutional arrangements raises a pertinent issue of scale and boundaries (Murphree 2000). When one considers the issue of devolved natural resource management a key question then becomes to what level should the resource management be devolved - and to which institutions? (North 1990; Murphree 1991). On the institutional arrangements questions such as to what levels and to whom are the powers devolved to, become pertinent issues as different institutions begin to compete for political space (Cocks, Dold & Grundy *in prep.*; Mosimane 2000; Madzudzo 2000). In the Mafungautsi case this was a pertinent issue as identifying the most relevant institutional level would have serious repercussions on its operations. Whilst some researchers have often argued for the "small is beautiful" argument (Schumacher 1992; Murphree 1990, 1991) this principle seems to be more effective. Murphree (1991) further points out that small scale has to be visualised not only in terms of the size of the community (*cf.* Bond 1996; Hulme and Murphree 2001; Wilson 2002) but also in terms of the ecology of the resource in question. Common property theories tend to view communities as comprising a homogeneous grouping (Salazar & Lee 1990; Murphree 1991; Ostrom 1997; Mandondo 2000). Whilst in some instances it might be necessary to use lower level boundaries and borders, there are cases where the ecological units at that level would make it uneconomic to manage the resources at such a level. Once the decentralisation of forestry resources had been announced in the form of the co-management of forestry resources other dynamics set in with the interaction of institutions and individuals as people seek to insert themselves and carve out new niches and power.

Institutional arrangements have to be flexible to accommodate the issues at stake in particular circumstances but this, however, has to take into account the situation on the ground as one might have a neat bureaucratic arrangement on paper which is

often defied on the arena of implementation. In the Mafungautsi case there were instances when the communities questioned the legitimacy of the RMC. The case of the Chemwiro-Masawi community is interesting in that the community passed a vote of no confidence in its RMC on the 5th of July 2000. This was however nullified by the FCZ. In this particular instance this created some sort of malice towards the RMC as it was no longer viewed as the people's RMC but a monster imposed and maintained by the FCZ. Locally created and adaptive institutions with the facilitation of the implementing agencies is needed to have local legitimacy (Ostrom 1990). This should be the approach in co-management for it to have local rather than state or donor legitimacy.

When the co-management arrangement began in Gokwe it fell into the trap that a number of rural development initiatives have fallen into. Most rural development agencies have quickly moved in to set up their own committees for implementing their activities. This institutional multiplicity has had its problems as they failed to link up with existing institutions resulting in conflicts and power struggles which at times worked against the success of the initiative. The case of co-management was one example. Instead of trying to link with existing institutions new institutions were introduced which related to existing institutions at various and confusing levels which varied from one RMC to another. Whilst flexibility in institutional design is important if determined from a local level but in the co-management initiative these were determined from above, with little input from the local people.

In this vein, one may argue that where possible, it would be better to try and work with existing institutions. New institutions bring in new dynamics and in most cases, seem to "die" once donor funds have been withdrawn. New institutions also add to the burden of institution proliferation as a result of most donors and government departments trying to establish new institutions. Establishment of new institutions is often cited as "a major achievement" for donor initiated projects.

10.1.7. Co-management should build on existing institutions

Within the context of co-management in Mafungautsi it is important to identify the role of traditional institutions in the conservation of natural resources. It is important to note that despite their waning powers, with the advent of independence in 1980,

traditional leaders were sidelined as they were seen as collaborators of the colonial government. In Mafungautsi it is still necessary to incorporate the traditional leadership structure. Most people still perceive them as "legitimate" leaders of the community. The recent government Traditional Leaders Act of 1998 seems to be a move in that direction. One still wonders how the "modern" local level structures such as the councillors and VIDCO leadership will react to such a power shift considering that salient power rifts can be detected in most of the communities. However for the sake of co-management, chiefs and headmen have a legitimating role in the operations of the RMCs. Chief Njelele and Headman Ndhlalmbi exercised punishments over the destruction of sacred trees. There is a need to build upon such practices and in cases where they are not responsive to current demands, they have to be improved upon so that they represent the interests of their local communities. Chief Njelele argued that the "*Zunde Ramambo*"[120] concept could be modified to establish community orchards that would help improve nutrition of the children in Gokwe.

A major strength of the traditional system of "justice" is its corrective nature rather than being punitive. Chief Njelele pointed out that his punishment was corrective and there is a lighter sentence for offenders who show remorse and regret over their actions. This seems to be at tandem with one of Ostrom (1990)'s design principles which calls for a graduated sanction mechanism.

It is important that one does not romanticise the role of traditional leadership especially in the face of challenges from immigrants who have different cultural backgrounds. Gokwe has seen the influx of people from areas such as Masvingo and parts of Matebeleland. This cultural adulteration has resulted in the dilution of the influence and power of the traditional leaders. The "immigrants", who according to Worby (1992); Nyambara (1999, 2000) are normally labelled the "*Madherukas*" as opposed to the local "*Shangwe*", boasts of a superior level of education and look down upon the local people and their culture. The advent of some churches such as The Seventh Day Adventist locally referred to as "*Masabata*" is challenging the authority of the local traditional leaders, in terms of sacred trees and sacred days

[120] This is where chiefs maintained communal fields. Produce from those fields would be used to feed orphans or those in need.

(*chisi*) when people are not supposed to work in their fields. The SDA rests on Saturday (sabbath day) and traditional leaders were asking them to rest again on Wednesday - this to them implied two working days lost each week. This creates a dilemma of an authority structure without capacity to enforce the regulations (Murombedzi 1990). These are some of the challenges that will have to be addressed in order to remould traditional institutions for them to be responsive to the current social, economic, environmental and political demands. Recently, traditional leaders were being enticed into being the leading supporters for the government. This could be another source of their opposition from people who might be of a different political persuasion.

Depending on the local context, it might be worthwhile considering the role of traditional leaders. This is not meant to romanticise their role but in the case study sites, traditional leaders had a legitimating role as they were considered as having authority unlike some of the state endorsed institutional structures which might have little powers but without local legitimacy. In such instances it is important to make sure that they then become more downwardly accountable to their local communities than they are upwards to the centre.

10.1.8. Land redistribution needs to be addressed

The land question was the root cause of the liberation struggle in Zimbabwe (Moyo 1986, 2000; Marongwe 2002). The land issue has assumed a centre stage at the international arena since the land invasions began in 2000. Whilst this research was not mainly focusing on the land issue, natural resource management and the land issue are closely linked. You can't do justice to the issue of natural resource management without looking at the land issue. The land tenure in Zimbabwe, which can be traced back to the colonial history, had implications on how the land was allocated and how the rural communities had access to natural resources. With agriculture being the main livelihood strategy in most parts of rural Zimbabwe, this means that land for natural resources such as forestry was only seen as a remainder from agricultural farming. People in Mafungautsi, like in all former Tribal Trust Lands (now communal areas) are faced with a dilemma of shrinking land for cultivation.

Whilst most communal people appreciate the need to conserve forests theirs is a fight against poverty which makes them feel that the opportunity cost, to them, of having forests is their suffering and poverty. People understand the processes operative in the degradation trend (du Toit 1985) but are trapped within an environment, both socio-economic and physical, not well suited for crop cultivation. Local people only respond to locally perceived needs. Communal farmers appreciate that when the environment is green they will have enough food and when the environment is exhausted, people share its fate. Sometimes the communal dweller rationale is based on survival. Poverty reinforces the detrimental impact of population build up. No person causes greater injury to natural environments than a hungry farmer does. Campbell (1994) points out that the main reason for woodland cover clearing is for cultivation of crops rather than harvesting of wood fuel. The wood fuel crisis (Munslow *et al.* 1988) questioned the whole concept of the fuel wood crisis, which seems to have been based on wrong assumptions. The main assumption seem to have been that the local people need firewood for heating and cooking yet the main reason why vegetation cover was being lost was opening up of land for agricultural activities in areas such as Gokwe which experienced a cotton boom after independence from Britain in 1980. The cotton success story has continued to be one of the main pull factors for new immigrants despite the reduction of available land. This research, through its participatory GIS, also found out that land has mainly been opened up in Batanai and Chemwiro-Masawi RMCs for agricultural expansion, largely due to immigration and local population expansion.

There was a constant reference to the "land hunger" yet a few people were still moving into Gokwe as recently as the mid-1980s. This migration could have been as a result of the general perception. One village head pointed out that whilst it is true that population is increasing, most people perceive the dark forest soils as being rich and ripe for cultivation. Land problems can be attributed to the highly uneven distribution of land. Some people have very small pieces of land whilst some have large pieces. Field surveys in Batanai revealed that 19.7% of the household heads had no fields with 70% owning between 1 and 5 hectares of land whilst others had

close to nothing with some relying on land renting[121] (Field surveys; Nyambara 1999).

For sustainable natural resource management in Zimbabwe the land issue needs to be addressed. This has to be done in an orderly manner so that it relieves land pressure on communal areas such as Gokwe South, which are in the marginal agro-ecological regions. The impact of the land invasions is difficult to assess at present due to the unavailability of records. Land reform would go a long way in providing land for agriculture for communal farmers, hence its link with management of forestry resources. Combined with the land reform, there is a need to make sure that there are viable natural resource management institutions in place and these institutions should have rights.

10.1.9. The concept of State Property regimes for the forests should be re-visited

Security of tenure is an important attribute, which determine the manner in which the local communities look after natural resources. In the Mafungautsi context the Mafungautsi forest still belonged to the state. Unlike in the Campfire approach where at least people feel they own the land, co-management in Zimbabwe meant that the FCZ still has control and ownership of land in terms of the Forest Act. This removes room for the communities to experiment and learn through practice. Under the co-management arrangement the FCZ, an arm of the government, still has ownership of the land with the local communities reduced to some use rights which are defined on the terms of the FCZ. Its implementation almost sounds like the park outreach programme (Barrow and Murphree 2001). This resulted in the Mafungautsi being referred to as the "Mugabe" or "Commission's forest" thereby denouncing the concept of "their forest" as the co-managing partners.

10.1.10. Women need to be better represented in Co-management institutions

The issue of gender and representation is one of the key issues in the decentralisation of natural resources of which forestry forms part. In the co-

[121] In Chemwiro-Masawi 7.7% of the household heads had no land for cultivation with 75% owning between 1 and 5 hectares.

management attempt the RMCs seem to be underrepresented in terms of women. In the case of Gokwe the majority of the people in the rural areas are women as most of the men are working in urban areas or simply go to urban centres in the hope of getting employment (CSO 1992, 1994). In the Mafungautsi case study there was little representation of women in the RMCs. After initial years of implementation the FCZ decided to encourage the election of women by "encouraging" people to elect female representatives. This meant that a number of women were seconded into the RMCs. It was however due to the FCZ's mechanisation that a female lost the "count" despite having won the vote of the people. However, the issue of who represents the community via the RMC cannot be an issue of just mere numbers. Some researchers such as Hughes (*Personal Communication* 2002) citing the Tanzanian case point out that in some instances people choose males whom they might feel would be able to stand their ground in the face of the government bureaucracy, namely the FCZ. This then reverts to the question of accountability. How accountable are the elected women in those RMCs to the people who elected them. You might have a committee of either men or women who are upwardly accountable to the powers above. This means that the committees will not be serving the interests of their electorate irrespective of their gender. In the Batanai case study area one woman was removed from the RMC by the FCZ because she was questioning the powers of the FCZ over their funds. Both Batanai and Chemwiro-Masawi RMCs, which were dominated by men, had no powers resulting in them being more upwardly accountable to the FCZ than to their local communities.

10.2. A Comparison with Campfire

Co-management in Mafungautsi seems to have an advantage over Campfire in that trees are fixed and do not destroy any crops unlike wildlife. Forestry resources are immobile which is an advantage in that its not like wildlife which may destroy crops in one area and move to another area managed by a different institution. Dividends earned in the Campfire areas have an element of compensation in-built unlike forestry products, which do not negatively affect agricultural activities. It is however important to note that non-timber forest products have very low values as compared to trophy hunting. Indigenous timber in Mafungautsi takes up to 60 years to mature. Revenue generated from mushroom, broom grass and thatching grass is not very high to act as an incentive to the local communities to meaningfully manage the

forests. "Woodlands generally have lower direct financial values than the game resources on which Campfire has been based" (Nhira *et al.* 1998: x). There seem to be more costs than benefits hence communities will be hesitant to invest their time and effort in managing the resource.

10.3. Why co-manage in the first place?

Co-management, in general, was introduced for three main reasons according to Hulme & Murphree 2001

- Conservation should revolve around the communities and not the state.
- Things to be conserved should be viewed as exploitable natural resources that can be managed to achieve sustainable development.
- The neo-liberal thinking that markets should be playing an important role in shaping the structure of incentives for conservation (Hulme & Murphree 2001, paraphrased).

Co-management in the Mafungautsi area of Zimbabwe was an attempt to change the state enforced environmental protection. This research sought to find out what happens when policy is implemented at a local level. Despite the fact that policy might make sense, there is a need to understand why policy outcomes do not seem to match intended or targeted outcomes. In the Mafungautsi area what was set out at the beginning was not achieved by the time the field research was carried out. One of the reasons was the design of the co-management.

The co-management arrangement in Zimbabwe seems to have been designed to fail or was rather set to fail due to the fact that the local communities' inputs were not incorporated or accommodated in the final document. A number of issues raised by the community were not addressed. The first issue to be highlighted was the land issue. This was one of the main issues raised during the feasibility surveys conducted in communities surrounding Mafungautsi. Land seemed to be what most of the people wanted which did not match what the co-management was offering. At first they felt that the arrangement would generate benefit streams which would compensate the need for land. The monetary benefits from the co-management were restricted with a lot of conditionalities. Once the communities realised that there were more costs than benefits they opted to avoid bearing all the costs through

subversive activities or simply not actively participating. On designing co-management arrangement it is important to take into account views of the community. This should be an ongoing process where the communities are consulted through the different stages of implementation. Communities have a right to change their minds as circumstances change. This should be taken into account through coming up with flexible implementation strategies in order to adapt to the changing situation. Co-management should not be perceived as an event, "but as a process of mutual social learning in which each side learns from and adjusts to the other over a period of time" (Berkes 2002: 304; *cf.* Singleton 1998; Kendrick 2000). The Adaptive Collaborative Management recently introduced by CIFOR could be a step in that direction.

10.4. Decentralisation - the new fashionable currency

The term decentralisation seems to have gained currency within the donor community (UN 1963; Smoke & Lewis 1996; Conyers 2000; Ribot 1999, 2000). More than 50 countries, according to the FAO survey, pointed out that they were following initiatives to devolve forestry management to the local levels (FAO 1999). Decentralisation is then therefore, seen as having a central value that none dares question it as long as it is "decentralisation." Similar arguments can be seen with words such as "civilisation" in the nineteenth century and "development" (*cf.* Ferguson 1990). Like development in Africa, decentralisation appears in many official government documents even though there has been no meaningful power devolved to the local people. Why then keep on talking about decentralisation of powers and natural resource management when nothing has been done? This seems to approximate what Ferguson (1990) refers to as resulting in the "entrenchment of bureaucratic state power, side by side with the projection of a representation of economic and social life, which denies 'politics' and, to the extent that it is successful, suspends its effects" (Ferguson 1990: xv). More often than not, the government has represented interests other than those of the rural poor and it is hardly surprising, therefore, that public intervention has in practice been harmful to the majority of the rural people rather than beneficial (Heyer, Roberts & Williams 1981). This is the unfortunate result that Ferguson (1990) calls the "anti-politics machine."

In this perspective, the "development" apparatus in Lesotho is not a machine for eliminating poverty that is incidentally involved with the state bureaucracy, it is a machine for reinforcing and expanding the exercise of bureaucratic state power, which incidentally takes "poverty" as its point of entry - launching an intervention that may have no effect on the poverty but does in fact have other concrete effects. Such a result may be no part of the planners' intentions - indeed, it is almost never is - but resultant systems have an intelligibility of their own (Ferguson 1990). This probably results in what some researchers call a drama/comedy of the commons (McCay 1995, 1996; McCay & Acheson 1987; Rose 1994), but one with a happy ending - for the entrenched state. This could also be said of co-management in Gokwe, which buttressed the "Fortress Conservation" yet it was all carried out in the name of devolving powers to the Mafungautsi communities. This approximates what some researchers call decentralising in order to re-centralise power (Wekwete & de Valk 1990).

10.5. Institutional Arrangements for Forestry Management

The research has highlighted the weaknesses of fortress conservation. This calls for a more open-minded approach, which accepts the possibility and the potential of common property management of forestry resources. Co-management is an option which, given a genuine opportunity, could demonstrate the capability of local communities to act as joint managers of natural resources. There are many plausible alternatives of managing natural resources than fortress conservation (Agrawal 2002). In addition, national governments in nearly all developing countries have turned to local-level common property institutions in the past decade as a new policy thrust to decentralise the governance of the environment. This shift in policy is no more than a belated recognition that a sustainable resource management can never be independent of sustainability of collective human institutions that frame resource governance, and that local users are often the ones with the greatest stakes in sustainability of resources and institutions (Agrawal 2002). Given an opportunity and an enabling environment the local communities can set up effective institutions for natural resource management (Agrawal 1999; McKean 1992). It is however important to note that there are some instances where the local communities do not look after their natural resources (Agrawal 2002). This should not be used as an excuse for not experimenting with co-management of natural resources.

10.6. Conclusion

This research further confirms findings by other researchers (Ribot, 1999, 2000, 2001) which observes that downwardly accountable institutions at local level makes a strong contribution towards positive social, ecological and environmental outcomes. Decentralisation which results in an upwardly accountable institution will not likely result in a sustainable management regime for natural resources such as forests as demonstrated in this research which looked at the Mafungautsi area of Zimbabwe. Upwardly accountable institutions do not build trust and may not resolve conflicts between the state and the local communities (Singleton 1998; Berkes 2002).

The management of natural resources has to be seen in the context of the overall livelihood strategy of a community. This has meant that most of the institutions have to be dealt with within the overall framework of decentralisation covering all the natural resources. Decentralisation has often been used to mean different things to different people. Even upwardly accountable institutions have often been labelled as decentralisation by governments who look at these institutions as serving their interests and purposes. Devolution of power has often been used as a tool for either punishing and rewarding the people who support the incumbent or a particular party that is in power at that particular time. This has not been an exception in Zimbabwe. Rhetorical powers have often been devolved without the necessary devolution of fiscal authority. Lack of devolution of fiscal authority to the local level institutions has meant that they have continued to depend on the centre, which they have to be accountable to.

10.7. Further Research

In this study, interviews based around aerial photographs were used to analyse historical patterns of land cover change. All respondents were able to interpret the photographs, but it was apparent that perceptions of change differed between respondents. One way of resolving such differences may be to use discussion based around aerial photographs as a tool for planning future natural resource use. For example, permit zones for thatch and broom collection could be delineated through a discussion process between the FCZ and the RMCs, referring to relevant aerial

photographs as necessary. This approach has already proved successful in one study of forest resource conflicts in Nepal (Mather *et al.* 1998).

This study has highlighted the importance of integrating GIS and participatory approaches to explain vegetation cover changes in two RMC areas in Gokwe. This integration of technical and participatory tools will go a long way to empower the local communities as it demystifies scientific knowledge. This dialogue between technical and participatory research methods empowers local people to counter "technical wisdom" using participatory technical tools. Such knowledge will strengthen the local communities' discussions with the FCZ, which at the moment claims to have the monopoly of knowledge. However, these two case study areas may not be typical of Mafungautsi Forest Reserve as a whole, since only localised changes were assessed and not the entire reserve area. Furthermore, there may be conflicts in natural resource use *amongst* the different RMCs, particularly as different communities may graze cattle or collect firewood in the same geographical areas. There is a need therefore to undertake similar research across a broader area and covering more RMCs. Future work could also examine vegetation change over a longer period of time, since aerial photographs are available for earlier years. Research in West Africa (Fairhead & Leach 1996) has shown that there may be cycles of expansion and contraction of vegetation cover and this cannot be deduced by analysing a short time span. It would also be interesting to draw conclusions from the three tenure regimes, communal, state and private (Chemagora SSCF area).

In this study, participatory mapping using aerial photography and PRA were carried out in parallel by different groups of respondents. However, a more useful approach may be to undertake an initial PRA exercise, followed by photo-based interviews with several groups differentiated on the basis of the PRA. The initial PRA exercise with a large group could identify key sub-groups within the community on the basis of gender, age, wealth, or length of residence. This group could then be separated into different sub-groups for the aerial photo-based interviews. In this way, different perceptions of land cover change *within* the same community (e.g. between men and women) could be identified.

This study has looked at the political economy component of the co-management arrangement in the Mafungautsi. On the environmental outcomes of the co-management arrangements what has been used are proxies of ecological indicators. As a long term strategy, it would be a useful approach if one pursues a combined social and ecological studies in order to come out with some ecological study since the FCZ itself does not have consistent ecological surveys to determine the outcomes of the various management regimes. This entails the setting up of ecological studies over a period of time. These surveys will also take into account the changes, which may be attributed to the climatic conditions from those which are a result of the institutional arrangements under co-management. This has to be carried out over a long period of time looking at issues such as biodiversity. This ecological survey combined with a political economy approach would most likely produce important results on decentralised forestry management in the Mafungautsi area - or any other efforts to decentralise natural resource management.

This research has highlighted a number of recommendations as to how co-management could be implemented. It would be an important step if co-management is carried out through experimentation with the suggested recommendations, making adjustments as and when it is necessary. That would more likely result in important applied research scholarship.

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Annex 1: Questionnaire

UNIVERSITY OF ZIMBABWE
CENTRE FOR APPLIED SOCIAL SCIENCES

Mafungabusi Resource Sharing Project Questionnaire.
A: HOUSEHOLD DEMOGRAPHIC DATA

01.Interview Number ☐

02.Interviewer.....

03.Respondent.....

04.Date..... ☐☐☐☐☐☐

05.Ward.....

06.RMC.....

07.VIDCO.....

08.Sex of Respondent M☐ F☐

09.Status of respondent
a.Head ☐
b.Spouse ☐
c.Child ☐
d.Other (specify)..... ☐

10.Age of household head
a.18-20 years ☐
b.21-30 years ☐
c.31-40 years ☐
d.41-50 years ☐
e.51-60 years ☐
f.Above 60 years ☐

11.Ethnic identity of household: ☐
a.Shona ☐
b.Ndebele ☐
c.Tonga ☐
d.Nyanja ☐
e.Karanga ☐
f.Other (Specify)..... ☐

12.Household head's birthplace

a.same village
b.same ward
c.Same district
d.Another district (Specify)
e.Outside Zimbabwe

13.What is the birth place of household head's parents?

a.Same village
b.Same ward
c.Same district
d.Another district (Specify).....
e.Outside Zimbabwe

14.Marital Status of household he
a.Single
b.Married (monogamous)
c.Married (polygynous)
d.Divorced
e.Widowed

15.Highest level of education of head of household

a.No formal education
b.2 years
c.5 years
d.7 years
e.Junior Certificate
f.Ordinary Level
g."A" Level
h.Vocational training
i.Technical College Diploma
j.University degree

16.Family size.....

17.What is your predominant religion?
a.Traditional Culture
b.Christianity
c.Islam
d.Other (Specify)..... .....

18.What is the main source of income for the household head?

a.Employment (Civil Servant)
b.Employment (private sector)
c.Self employed (Specify).....
d.Unemployed
e.Housewife
f.Farming

19.If household head is employed what is the gross monthly salary?

a.Below $500
b.$501- $1000
c.$1001-$2000
d.$2001-$4000
e.$4001-$6000
f.Above $6000

20.How many members of the household are employed?
.....

21.Are you involved in income generating activities?

a.Yes
b.No

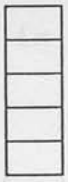
22.If Yes in 21 what are the projects?
.....
.....
.....
.....
.....

B.AGRICULTURE

Also observe presence or absence of grain storage facilities and material used for its construction.....
.....
.....

23. What are your agricultural activities in order of importance (Area cultivated)?

a.Crop cultivation
b.Cattle rearing
c.Market gardening
d.Fruit selling



e.Other (Specify).....

24.Agricultural production

CROP	HECTARAGE	QUANTITY HARVEST	AMOUNT SOLD
Maize			
Sorghum			
Cotton			
Tobacco			
Mhunga			
Groundnuts			
Sunflower			
Rapoko			
Other(Specify			

25.How did the household acquire land?

a.No land
b.Cleared forest land
c.inherited from father
d.From relatives and friends
e.Other (Specify)

C. LIVESTOCK

26.How many cattle do you own?
a.0
b.1-3
c.4-5
d.6-7
e.8-9
f.10 and above

27.Where do you graze your cattle in the rainy season?
a.Mafungabusi Forest
b.Close to homesteads
c.In the fields
d.Other (Specify)

28.Where do you graze your cattle in dry season?

a.Mafungabusi
b.Close to homesteads
c.In the fields
d.Other (Specify).....

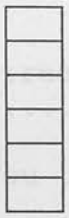
.....

29.Did the household sell any cattle in the last 12 months?
a.Yes
b.No

30.If Yes, how many and why?.....

31.Does your household require more grazing land?
a.Yes
b.No

32. If Yes, how will access to more grazing be acquired?
a.From government
b.From traditional leaders
c.Resettlement
d.Move fields
e.Go to another area
f.Other (Specify).....



.....

33. Does the household have problems with the size and management of grazing areas?
a.Yes
b.No

34.IF, Yes what are these problems?
i.Too small, too few
ii.Overgrazed
iii.No grass in dry season
iv.Crop and grazing areas conflict
v.Poisonous plants
vi.Drought
vii.Settlers in grazing area
Viii.Outsiders bring cattle
ix. Other (Specify).....

.....

35.If Yes how should they be solved?
i.Resettle homes ☐
ii.Designate grazing areas ☐
iii.Paddocks or fences ☐
iv.Community should decide ☐
v. Men should decide ☐
vi.Other (Specify)..... ☐ .....

D. NATURAL RESOURCES

36. Are there any environmental problems in your area?

Yes ☐
No ☐

b. If Yes, what are they?
.....

37.What are the local tree species and their uses?

38.Which tree types do you have?

39.What is the number of trees?
.....

40.What conservation methods do you use?

41.What do you use as fuel? (Cooking).....

42.Interviewer to observe type of housing structures and construction materials (wall and roofing materials)
.....
.....

43.Do you think it is important to conserve trees?

44.Why do you say so?

45.What do you get from Mafungabusi?

46.Where does the household get firewood?
i.Nearby.....(distance)
ii.Mafungabusi.....(distance)
iii.Other (Specify).....(distance)

47.Does the community have an adequate and accessible supply of firewood?

YES
NO

48.IF No, what needs to be done to assure a good supply of firewood?.....

49.During the last 12 months has the household cultivated any streambank/riverbank plots?

Yes
No

50.If crops grown how was the tiling done?

a.hand
b.Animal
c.Tractor
d.Other (Specify)..... .....

51.Is tree cutting in this area controlled?

a.Yes
b.No

52.IF Yes, How?

a.Self restraint, responsibility
b.Educate people
c.Community pressure
d.Legal controls
e.Traditional leaders
f.Forestry Commission
g.Natural Resources Board (NRB)
h.Other (Specify)

53.How effective is the control mechanism?

i. Good
ii.Moderate
iii.Poor

Explain.....
.....
.....
.....
.....

54.Where does the community get thatching grass?
.....
.....
.....

55.Does community have adequate thatching grass?

a.Yes
b.No

56.Should new immigrants be permitted into the ward?

a.Yes
b.No

57.Are there sacred places in your ward?

a.Yes
b.No

58.If Yes above what are they used for?
.....
.....
.....
.....
.....

59.Would you want to join the Mafungabusi Resource Sharing Project?
Yes
No

60.What do you think are the advantages and disadvantages of joining the Resource sharing scheme?
.....
...

61.Whom do you regard as the custodian of natural resources in your village?

.....
.....
.....
.....
.....

E. GENERAL COMMUNITY ISSUES

62.Which two organizations/institutions does your Village normally deal with

1.....
...
2.....
...

63.What are the major problems faced in your village?

.....
.....
.....
.....
.....

THANK YOU FOR YOUR TIME.

Annex 2: Land Cover Change Results

	FOREST PROTECTION UNIT	BATANAI	CHEMWIRO-MASAWI	SECONDARY DATA
LAND COVER & WILDLIFE CHANGES				
VEGETATION CHANGE in Mafungautsi	No change except for the 5-6km belt along Bulawayo road.	Tree cover had increased in Mafungautsi	Increased tree cover implied	Increase in tree cover on aerial photographs as former cultivation reverts to forest
VEGETATION CHANGE IN COMMUNAL AREA	Localised loss of tree cover	Severe loss of tree cover, increased stream bank cultivation in the river beds	Decrease due to commercial logging, Indigenous tree decreasing, gum trees are increasing-more gum trees than indigenous trees in future	Decrease in tree cover visible on aerial photographs, especially in de-gazetted area
WILDLIFE CHANGE	Reduced wildlife numbers, more concentration around FPU camp at Lutope	Wildlife concentrated around the camp, but no change in numbers	Some felt that there was an increase whilst other felt that there was a decrease	Not available
LAND USE CHANGE				
CATTLE NUMBERS AND GRAZING	no change	no change	no change	Dip Tank figures
TREE PLANTINGS	Not aware of planting within communal areas	Some planting and some are not for fear of losing rights over trees and problems of slow growth.	Active planting taking place because of free seed and pockets, but shortage of land is a major problem	Eucalyptus not distinguishable from other forest cover types on aerial photographs

CHANGE IN FIRE	No change - fires annually	No comment	Fires had decreased	Not available
EFFECTS OF FIRE	Makes easier to kill game	People are starting fires, Easier to kill game, reduce ticks, Distract FPU, Improve pasture quality, Revenge on FPU, enjoyment	Reduces thatch and Broom grass	
OBSERVED CHANGES IN LAND USE DRIVERS				
STRICTNESS OF ENFORCEMENT	Not specified	Fines and patrol had increased	Enforcement had increased because of the RMCs and co-management	Increase in number of poaching prosecutions from 1991-98
CLIMATE & HYDROLOGY	No comment	Definite reduced stream flow and rainfall in communal area	No change	Not available
POPULATION CHANGES	House - building by immigrants increases pole demand	Increased population has resulted in increased land demand and conflicts	Natural increase in population but no immigration was going on	Historical figures only available at district level
SOIL FERTILITY CHANGE	No comment	Soil fertility is going down that's why stream bed cultivation is happening	Soil fertility has always been low but its deteriorating	Maize yields adjusted for rainfall decline from 1981-93, but cotton and groundnut yields do not.

Annex 3: PRA Tools Used

PARTICIPANTS	FACILITATOR	RECORDING	DATE	LOCATION	TECHNIQUE USED						
					FGD	I.R	RM	TL	WR	SC	PM
Batanai Women	Everisto Mapedza	Research Assistant	30 November 1999	Batanai	Y	Y					
Batanai Youths	Everisto Mapedza	Research Assistant	30 November 1999	Mafa Village	Y	Y					
Batanai Men	Everisto Mapedza	Research Assistant	29 November 1999	Mafa Village	Y	Y					
Nyaje Men	Everisto Mapedza	Research Assistant	1 December 1999	Nkomo Village	Y	Y					
Nyaje Women	Everisto Mapedza	Research Assistant	1 December 1999	Nkomo Village	Y	Y					
Mutanhaurwa Women	Everisto Mapedza	Research Assistant	2 December 1999	Mutanhaurwa	Y	Y					
Batanai Women	Mancuma	Research Assistant	29 September 2000	Batanai	Y			Y	Y	Y	
Batanai Mixed	Everisto Mapedza	Research Assistant	29 September 2000	Batanai	Y	Y		Y			
Batanai Men	Jim Wright	Research Assistant	29 September 2000	Batanai			Y				Y
Batanai	Daniel Phiri	Research Assistant	29 September 2000	Batanai			Y				
Chemwiro-Masawi Women	Mancuma	Research Assistant	2 October 2000	Matambo centre	Y			Y	Y	Y	
Chemwiro-Masawi Mixed	Everisto Mapedza	Research Assistant	2 October 2000	Matambo centre	Y	Y		Y			
Chemwiro-Masawi Men	Jim Wright	Research Assistant	2 October 2000	Matambo centre			Y				Y
Chemwiro-Masawi Mixed	Daniel Phiri	Research Assistant	2 October 2000	Matambo centre			Y				

Key

FGD: Focus Group Discussion
I.R: Institutional Ranking
R. M: Resource Mapping
T. L: Time Lines
WR: Wealth Ranking
SC: Seasonal Calendars
PM: Participatory Mapping (photo analysis)

Annex 4: Research Publications

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Applied Geography 23 (2003) 1–21
APPLIED GEOGRAPHY
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An investigation of land cover change in Mafungautsi Forest, Zimbabwe, using GIS and participatory mapping

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Abstract

This paper investigates the processes governing land cover change in and around the Mafungautsi Forest Reserve in Zimbabwe. This study site lies at the interface between the state and communal property regimes. Land cover change was analysed using aerial photography for 1976, 1984 and 1996 within a Geographic Information System (GIS). Perceived change and its causes were investigated through governmental data sources, participatory mapping and interviews with the local community and forest guards. It was found that whilst forest cover within the reserve has remained constant, it has been steadily declining outside its boundaries. This decline, a result of agricultural expansion and demand for building materials and firewood, was perceived as more pronounced by local farmers than by the forest authorities.

Keywords: Land use; GIS; Participatory mapping; Resource sharing; Tree cover; Zimbabwe

Introduction

In the last decade, the established view of land cover change in Africa has been reappraised. For much of the last century, environmental degradation (loss of forest cover and soil erosion) were held to increase linearly with population density and

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measures were put in place to combat such changes (Bassett & Bi Zueli, 2000). In Zimbabwe, for example, forest reserves were gazetted to protect river catchment areas through the removal of the human population. More recent work in Guinea, however, has shown that the relationship between population density and land cover change is more complex (Fairhead & Leach, 1996). In the longer term, cyclical expansion and contraction of forests may take place as agricultural land is abandoned and then recolonized. 'Crisis narratives' of environmental history have also been challenged by further work in Cote d'Ivoire (Bassett & Bi Zueli, 2000) and Kenya (Tiffen, Mortimore & Gichuki, 1994).

Previous research (Elliot & Campbell, 2001) has also questioned the simplistic assumption that a reduction in percentage tree cover necessarily leads to greater scarcity of woodland resources. Within Zimbabwe, Scoones and Wilson (1988) have shown that biomass production per hectare may actually increase as tree cover diminishes when remaining woodlots are managed by pollarding or coppicing. Similarly, Wilson (1990) showed that the abundance of fruit trees did not decline after deforestation, because fruit trees were selectively conserved and their value recognized by smallholders.

Specific responses to resource shortages in miombo woodlands are often complex and may vary between locales. Privatization of resources has been documented as one response to scarcity in Zimbabwe's smallholder areas (Scoones & Wilson, 1988; Mukamuri, 1995), but elsewhere communal arrangements have been re-instigated in the face of natural resource shortages (van den Brink & Bromley, 1992). Campbell, Grundy and Matose (1993) found that the choice of tree species for construction and firewood became less selective as resources became scarcer. As firewood availability declines, harvesting arrangements change and men often become more involved in its collection (Campbell, Grundy & Matose, 1993). These findings imply that responses to perceived scarcity of natural resources may be complex and unpredictable.

Many of these more recent studies have relied on participatory methods to explore local understanding of environmental history. However, findings from participatory rural appraisal (PRA) can be affected by the composition of participant groups and group discussions influenced by one or two dominant individuals. To overcome these inherent weaknesses, Goebel (1996) has suggested that techniques such as PRA should best be deployed in conjunction with other methods, so that findings from technical and social research methods may subsequently be triangulated. One such complementary technology is GIS, which has previously been used with participatory methods to explore land cover change in Ghana and Zimbabwe (Elliot & Campbell, 2001). A second complementary technique is participatory mapping, in which maps or aerial photographs form the basis for group discussion of environmental change or land ownership. Aerial photography has successfully been used in interviews with illiterate farmers in Nepal (Mather, de Boer, Gurung, & Roche, 1998), Cote d'Ivoire (Bassett, 1993), and in educational studies of young children from several countries (Blades et al., 1998).

This paper explores land cover change in and around Mafungautsi Forest Reserve, part of the Zambezi River catchment area in central Zimbabwe. Changes in land

cover between 1976 and 1996 are assessed using historical aerial photography and land use is described using participatory interviews centred on the 1996 aerial photographs. Comments from these interviews about underlying drivers of land use change (population, soil fertility, and enforcement within the park) are compared, both between respondents and with other data sources. The reasons for the adoption of this strategy were twofold. First, whilst remote sensing studies can identify changes in *land cover*, the changes in *land use* that lead to vegetation change are very difficult to determine without follow-up fieldwork on the ground. Secondly, vegetation change as perceived by land users may differ from actual vegetation change and be an important determinant of behaviour among those using local natural resources. Participatory mapping techniques were therefore used to elicit information from residents regarding land use and perceived land cover change.

The study area

The study area lies in Gokwe South District in the Midlands Province of Zimbabwe (see Fig. 1). The natural vegetation in Gokwe is miombo woodland, dominated by *Brachystergia spiciformis* in association with *Julbernardia globiflora* (Gokwe South Rural District Council, 1994; Campbell, Frost, & Byron, 1996). There are also some areas of teak woodland dominated by *Baikiaea plurijuga* in association with *Pterocarpus angolensis* and *Guibourtia coleosperma*. Grassland areas, known as *vleis*, cover lower slopes near surface drainage lines. Outside the forest reserve, this vegetation has progressively been cleared for agriculture, initially through shifting cultivation and latterly as cotton production expanded. Typically, tree cover remains along stream and river banks and fruit trees are often left standing. Topographically, the study area largely consists of the gently undulating Mafungautsi plateau, which is dissected in places by streams.

Mafungautsi Forest Reserve was gazetted in 1954 for ecological reasons, since it forms part of the watershed for the Sengwa–Mbumbusi river system. These rivers flow into the Zambezi, which contains the Kariba Dam, an important generator of hydroelectric power for both Zimbabwe and Zambia. Before 1940, most of Gokwe was sparsely populated, because of the threat of disease from tsetse fly. However, some people migrated into Gokwe after the elimination of the tsetse fly whilst a significant number were forcibly moved from areas designated for European settlement in the 1950s and 1960s (Ndanga, 1987; Matose, 1994; Nyambara, 1999). This resulted in increased population density in Gokwe and greater demand for land within the gazetted forest area.

In terms of current livelihoods, Gokwe is known for cotton production activities (Worby, 1992). Agriculture is the main source of income, with cotton as the primary cash crop and maize cultivation also commercially important. Other income-generating activities include marketing of fruits (bananas) and non-timber forest products (honey, mushrooms and wild fruit). Local grasses are also sold to provide thatch for housing and for making brooms. The area is ethnically mixed as a result of continued immigration, with Ndebele and Shona-speaking peoples forming the majority of the population.

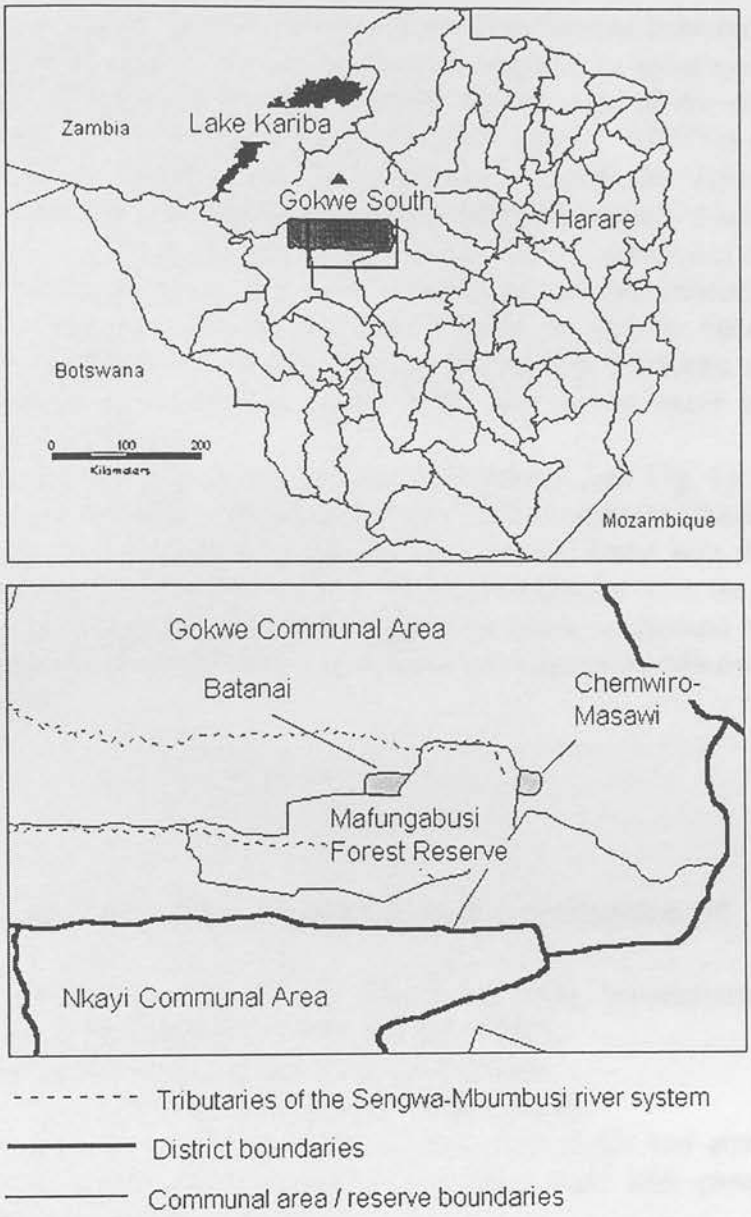

Fig. 1. Location of Gokwe South district, Mafungautsi reserve and the case study communities of Batanai and Chemwiro–Masawi.

Management of Mafungautsi Forest Reserve

The Forestry Commission, a central government body, is legally responsible for managing the gazetted forest. Tree-cutting, hunting and deliberate burning are all prohibited within the forest reserve. A Forest Protection Unit (FPU) within the Forestry Commission is responsible for enforcing these regulations and has the power to make arrests. In 1995, the Forestry Commission introduced co-management arrangements with the rural communities near Mafungautsi Forest. These arrangements make provision for natural-resource sharing within the gazetted forest but not

surrounding agricultural land. The communities have formed resource management committees (RMCs), which are new institutions intended to spearhead the co-management project. Separate RMCs have been formed for most of the village development committees (VIDCOs) surrounding the forest reserve. VIDCOs are the lowest geographical unit of administration in Zimbabwe's smallholder farming areas and each VIDCO typically contains approximately 1000 inhabitants. Some RMCs have also been formed at levels above or below the VIDCO (Mapedza & Mandondo, forthcoming). The RMCs have the power to grant permits for collecting thatch and broom grass in selected areas of the forest reserve, as well as encouraging tree-planting in the smallholder areas and fighting fires within the forest reserve. Funds from these permits are controlled by the RMC and can be spent on community projects within the VIDCO.

Two RMCs, namely Chemwiro–Masawi and Batanai (see Fig. 1), were selected for this study. Batanai RMC encompasses one VIDCO whereas Chemwiro–Masawi RMC comprises two. Batanai was selected as a former forest area that was ceded to the neighbouring communities in 1972. Aerial photographs from the 1960s suggest that before being de-gazetted in 1972, vegetation cover in Batanai was similar to the rest of Mafungautsi Forest. By way of contrast, Chemwiro-Masawi has a longer settlement history.

Methods

Changes in land cover were examined through a combination of:

- participatory rural appraisal (PRA) (Chambers, 1994; International Institute for Environment & Development, 1995; Goebel, 1996);
- semi-structured interviews using aerial photographs;
- analysis of historical aerial photography within a GIS;
- analysis of secondary data relating to rainfall, crop yields and arrests, and
- follow-up interviews with Forestry Commission staff and groups of youths, women, and the elderly.

This approach was adopted following Goebel's (1996) suggestion that PRA should be complemented by other techniques to overcome its inherent weaknesses. Interviews with local residents were conducted in late 2000 to identify current land use, perceived changes in vegetation, and their possible causes. People were invited to attend meetings in both study RMCs via community leaders. Attendees were then split into groups in a participatory manner so that people chose a group they wanted to join. Groups participated in PRA and semi-structured interviews as described below. The evening after each interview, one of the authors wrote a synopsis of the day's discussions. In addition, a research assistant took notes during the exercise, thus providing two written accounts of each interview. Subsequently, follow-up interviews were conducted separately with groups of youths, the elderly, and women.

Participatory rural appraisal (PRA)

Gokwe South District has one of the lowest literacy levels in Zimbabwe, with only 39% of its people having received formal education (Central Statistical Office, 1992), so participatory approaches had to be used. The participatory approach was also chosen as a means of exploring perceptions of land cover change through a dialogue between 'outsiders' and 'insiders' (Chambers, 1983; Goebel, 1996). Focused group discussions involving up to ten people explored different forest uses and perceived change over time. Resource mapping was used to obtain the relative perception of vegetation cover by the local communities. In this participatory research approach, people sketch local natural resources in map form (Chambers, 1994; International Institute for Environment & Development, 1995). The technique was also used with time-lines, where events are placed in relation to significant events with known dates, such as a year of drought, independence, or when a new school was built.

Semi-structured interviews using aerial photography

Simultaneously with the PRA fieldwork, semi-structured interviews were conducted with groups of local respondents. Semi-structured interviews involve the use of a pre-designed series of open-ended questions, but also allow unanticipated themes to be explored by the interviewer (Miles & Huberman, 1994). Respondents were asked about land cover changes, use of local natural resources (current, likely future and historical) and fire frequency. Mosaics of aerial photographs were obtained for these interviews and acetates were fixed over the photo-mosaics. When describing the areas used for a particular purpose, respondents could therefore draw the boundaries of the zones used onto the acetate in marker pen. Such zones included areas for thatch and broom grass collection and areas affected by fire. Black-and-white 1:50 000 aerial photography from 1996 was used for these interviews and enlarged to 1:25 000-scale to make interpretation easier. Aerial photography was used instead of topographic maps because those with only basic education find aerial photographs easier to interpret (Bassett, 1993; Mather, de Boer, Gurung & Roche, 1998).

Three workshops were conducted using the aerial photographs. The first was conducted in Batanai with a group of seven local farmers. Apart from one RMC committee member, the majority were not directly involved in resource-sharing. A second interview was conducted with 12 farmers in Chemwiro-Masawi. This group was more directly involved in resource-sharing and community groups and included the local RMC secretary, the ward councillor and several RMC members. Both groups consisted almost exclusively of men, with only one woman present. Finally, a similar interview was conducted with a member of the FPU at Mafungautsi to determine his perception of vegetation change.

The aerial photo mosaics were subsequently scanned onto computer, imported into a geographical information system (GIS) and geo-referenced, as described below. Land use zones and other observations recorded during all three interviews were then digitized on top of the geo-referenced scanned images by reference to the original acetates.

Historical aerial photography analysis

Black-and-white aerial photo-mosaics (scale 1:50 000) of the Batanai area of the reserve and surrounding farmland were obtained for 1976, 1984 and 1996 and scanned onto computer as three A3-size images for each year. These images were then geo-referenced to Universal Transverse Mercator (UTM) co-ordinates by applying a linear transformation to control points from a 1996 panchromatic Spot satellite image and 1:50 000-scale topographic maps. Root mean square (RMS) errors, which measure the positional accuracy of the UTM transformation (Johnston, 1998), were calculated for each scanned image and are shown in Table 1. Allowable RMS error was estimated as 15.5 m, based on a 1:50 000-scale cartographic standard (Clark Labs, 1999; US Geological Survey, 1999). Although most of the RMS statistics for the images failed to meet this standard, the map layers produced were used solely for the calculation of areas and not for map overlay, thus mitigating such positional inaccuracy.

Polygons were then digitized over these photographs to delineate four land cover types: agricultural land, woodland/scrub, *vlei*, and forest. Percentage tree cover was estimated for each polygon, being lowest for *vlei* and highest for the forest category. These percentages were derived from field observations of each land cover class made during 2000. An attempt was made to identify eucalypt woodlots planted within the smallholder farming areas. However, field observations in Batanai suggest replanting is piecemeal and small-scale and so these dispersed eucalypt patches proved too difficult to identify on the available photography. As significant land cover changes had taken place between 1996 (the latest available photography) and 2000/2001 (the period of fieldwork), formal 'ground-truthing' of these maps was not undertaken.

Secondary data analysis and follow-up interviews

Several government datasets were used to cross-check interview findings, including 1981–93 crop yield data for Gokwe communal area (Agritex/USAID FEWS,

Table 1
Root mean square error statistics (in metres) for geo-referencing of aerial photography for Batanai, Gokwe South district

Year	Image no.	RMS error	No. of control points
1976	1	22.7	16
1976	2	19.4	14
1976	3	15.4	15
1984	1	12.0	13
1984	2	25.4	15
1984	3	25.3	15
1996	1	23.9	12
1996	2	28.7	12
1996	3	23.0	11

2001), precipitation records for the district meteorological station, and the number of poaching arrests in Mafungautsi made by the FPU. Follow-up interviews were conducted separately with the elderly, women and young people to further investigate issues that emerged during the workshops. This enabled women and young people to express views independently of men, whilst the elderly gave accounts of changes that have taken place within their environment since the 1940s. Follow-up interviews were also conducted at various levels within the Forestry Commission.

Results

Changes in land cover

A clear-cut perceptual division between the forest reserve and the communal land pervaded all the interview sessions and is therefore reflected in the presentation of results here. Table 2 shows the pattern of land cover change in both areas as recorded through interviews with the FPU and communal farmers and through aerial photography analysis. This table also compares perceived changes in land use and its drivers according to these interviews and governmental data.

Land cover changes within Mafungautsi

The FPU guard interviewed felt that tree cover within Mafungautsi had remained largely unchanged in the last ten years, although pole-poaching had reduced tree cover in some peripheral areas of the forest reserve. At Batanai, the farmers' group felt strongly that tree cover had increased within Mafungautsi over the past ten years, whilst opinions at Chemwiro-Masawi were divided, some perceiving increased tree cover and others a decrease. The PRA interview with the women's group at Batanai suggested that they were even more aware of the reduction in tree cover than the male farmers' group.

Analysis of aerial photography for the Batanai area supported the observations of farmers within this RMC. Within Mafungautsi Forest Reserve, tree cover declined from 68% in 1976–7 to 66% in 1984, but then rose again to 71% by 1996. Some 1.5% of this change may be due to positional inaccuracy in delineating the reserve boundary, as estimated from the RMS errors in Table 1. Fig. 2 illustrates the changes in land cover within Batanai. During and immediately after the independence war, several communal farmers encroached into the forest reserve as political insecurity led to the suspension of boundary enforcement. The land cleared by these 'settlers' can be seen on both the 1976 and 1984 aerial photographs in Fig. 2. By 1996, the northern area of encroachment had largely reverted to forest, whilst the southern encroachment area remained as grassland.

Land cover changes in communal areas

The Batanai group felt strongly that tree cover was diminishing rapidly within their village, because of pressure for agricultural land, building materials and fuelwood. The situation was further exacerbated as diminishing crop yields forced some

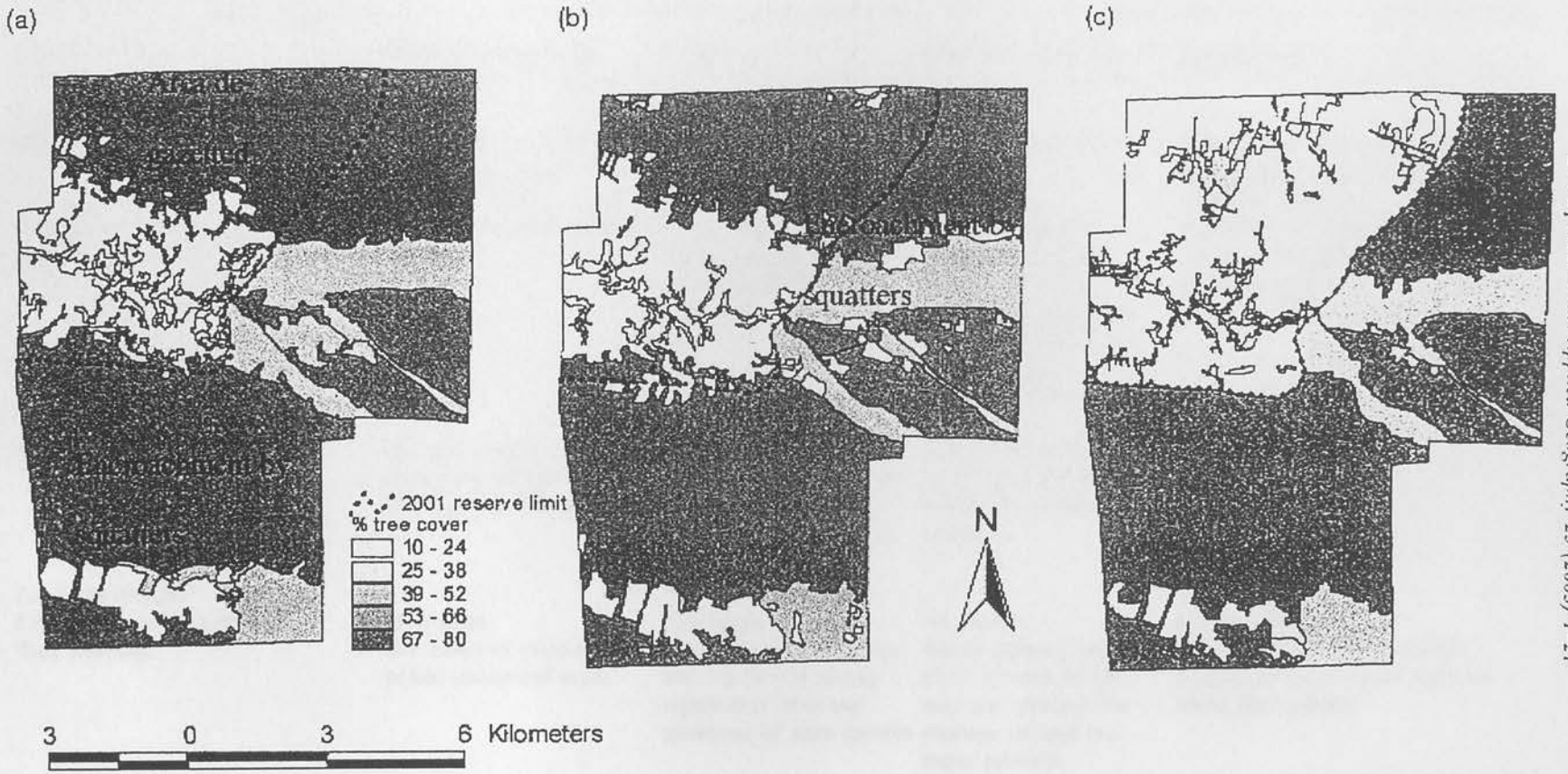

Fig. 2. Tree cover in the Batanai area of Mafungautsi and Gokwe communal area in (a) 1976/7; (b) 1984; and (c) 1996 (based on aerial photography).

Table 2
Changes in land cover, land use and land use drivers around Mafungautsi, as identified through governmental data and interviews with communal farmers and the Forest Protection Unit

Type of change	Forest Protection Unit	Batanai	Chemwiro–Masawi	Secondary data
Land cover and wildlife changes				
Vegetation change in Mafungautsi	No change except for the 5–6-km belt along Bulawayo road	Tree cover had increased in Mafungautsi	Increased tree cover implied	Increase in tree cover on aerial photographs as former cultivation reverts to forest
Vegetation change in communal area	Localized loss of tree cover	Severe loss of tree cover, increased stream bank cultivation in the river beds	Decrease due to commercial logging, Indigenous trees decreasing, gum trees are increasing – more gum trees than indigenous trees in future	Decrease in tree cover visible on aerial photographs, especially in de-gazetted area
Wildlife change	Reduced wildlife numbers, more concentration around FPU camp at Lutope	Wildlife concentrated around the camp, but no change in numbers	Some felt that there was an increase whilst others felt that there was a decrease	Not available
Land use change				
Cattle numbers and grazing	No change	No change	No change	Dip tank figures
Tree plantings	Not aware of planting within communal areas	Some planting and some not, for fear of losing rights over trees and problems of slow growth	Active planting taking place because of free seed and pockets, but shortage of land is a major problem	Eucalyptus not distinguishable from other forest cover types on aerial photographs

(*continued on next page*)

Table 2 (*continued*)

Type of change	Forest Protection Unit	Batanai	Chemwiro–Masawi	Secondary data
Change in fire	No change – fires annually	No comment	Fires had decreased	Not available
Effects of fire	Makes it easier to kill game	Used to kill game, reduce ticks, distract FPU, improve pasture quality, for revenge on FPU and enjoyment	Reduces thatch and broom grass	
Observed changes in land use drivers				
Strictness of enforcement	Not specified	Fines and patrols had increased	Enforcement had increased because of the RMCs and resource sharing	Increase in number of poaching prosecutions from 1991 to 1998
Climate and hydrology	No comment	Definite reduced stream flow and rainfall in communal area	No change	Not available
Population changes	House-building by immigrants increases pole demand	Increased population has resulted in increased land demand and conflicts	Natural increase in population but no immigration was occuring	Historical figures only available at district level
Soil fertility change	No comment	Soil fertility is declining – hence stream-bed cultivation is happening	Soil fertility has always been low but is deteriorating	Maize yields adjusted for rainfall decline from 1981 to 1993, but cotton and groundnut yields are not.

farmers to cultivate stream-beds. In Chemwiro-Masawi, the situation was somewhat more complex. In one part of the communal area, trees had been felled commercially by permission of the district council, but against the wishes of local residents. Elsewhere, piecemeal tree-felling for timber and land clearance was taking place, although this was counteracted somewhat by eucalyptus planting. In the future, Chemwiro-Masawi residents felt that the composition of tree species on their land would shift towards eucalypts and away from indigenous species. Although the forest guard felt unfamiliar with the situation within the communal areas, he did feel that there had been some localized loss of tree cover. This was confirmed in a subsequent interview with another Forestry Commission representative, although there was no systematic monitoring of forest composition and biodiversity. In common with many other communal areas (Campbell, du Toit & Attwell, 1989), indigenous fruit trees were not felled and no respondents envisaged a situation where fruit trees would be at risk. In addition, some remaining patches of vegetation cover were associated with rain-making ceremonies (*mutoro*).

The observations of the Batanai community are again supported by the aerial photography. Percentage tree cover was estimated to have declined from 51% in 1976–7 to 47% in 1984 and then to 14% by 1996. This large decrease was mainly due to the de-gazetting of Batanai and subsequent clearing of land for cultivation and homesteads by immigrants. As shown in Fig. 2, in 1972 a section of forest was de-gazetted and legal occupation by smallholders began. By 1996, virtually all of this forest had been felled, whilst elsewhere in the communal area, further losses of tree cover took place, albeit on a smaller scale.

Patterns of land use

Whilst many land use drivers had been identified prior to fieldwork, several themes only became apparent during the semi-structured interviews. These themes included the importance of declining soil fertility and crop yields in driving land clearance in the communal areas and the perceived effect of land cover changes on rainfall patterns and streamflow.

Fire

The group of farmers at Chemwiro-Masawi held that the frequency of fires within the forest reserve had declined following co-management, principally because of community enforcement and the imposition of steep fines for offenders. In contrast, the FPU felt that the burning regime had remained unchanged over the previous ten years. In Batanai, fire was regarded as a useful means of managing vegetation. Not only did regular burning of *vleis* make hunting of game easier, but it also reduced tick populations. It therefore combated cattle disease and encouraged grass regrowth, thus improving grazing potential. Fires were occasionally started as a means of collecting honey. Fire was also considered a means of settling scores with the FPU and a useful tactic for distracting forest guards for those wishing to enter the forest reserve illegally. The Chemwiro-Masawi group felt that farmers there realized that persistent burning reduced thatch and broom grass quality, whilst the Batanai group

considered burning a means of improving grazing quality for cattle. The FPU regarded *vlei*-burning as more frequent in the Batanai area, with *vleis* closest to the communal areas being most at risk. In contrast, an earlier study at Mafungautsi (Matose, 1994) found that people starting fires were reprimanded, because fires were often followed by invasion of a noxious weed known as *mukauzani*, which is poisonous to cattle.

Cattle-grazing

All respondent groups agreed that livestock numbers had not changed substantially in the previous ten years. It was felt that there was a natural limit to the number of cattle that could graze within Mafungautsi. All respondents reported that cattle graze unsupervised, but concentrate largely in the *vleis* and grassy areas once occupied by 'settlers'. Approximately 20 000 cattle are estimated to enter the forest every year (Matzke, 1993).

Tree planting

Views about tree planting within communal areas differed between the three interviews. In Batanai, farmers believed that there was little benefit to be derived from planting trees, partly because of the long delay before any wood could be harvested. Some also believed that the Forestry Commission might repossess communal land afforested with eucalypts and were suspicious of planting schemes. By contrast, in Chemwiro-Masawi, it was felt that uptake of planting was high because of free seedlings and pockets provided by Forestry Commission. However, some people expressed concern about limited land availability for tree planting. Subsequent field visits suggested that some individuals had planted eucalypts extensively.

Thatch and broom collection

All respondent groups showed clear awareness of their designated permit areas for thatch and broom collection, and there was a broad correspondence between the areas identified by the forest guard and those identified by villagers (Fig. 3). In Batanai, very little thatch and broom was available in the communal areas, and this led to some illegal collecting of inferior quality *ndabula* grass for thatch from the forest margins, in addition to the grass collection from permit areas. In Chemwiro-Masawi, however, thatch and broom grass grew within the communal area and so local residents had no need to visit Mafungautsi to collect grass for their own houses. This meant that the local RMC could grant permits to outsiders from neighbouring communal areas such as Nkayi, thereby guaranteeing income for the RMC. It was anticipated that local residents would continue to use thatch and broom from within the VIDCO in the future, but that demand for thatch and broom from other areas—and with it the value of permits—would increase as natural resources elsewhere became depleted.

Timber and firewood collection

Pole-poaching was considered to be most intense near the Bulawayo road (Fig. 3), in the forest areas closest to communal settlement. A similar decrease in pole-

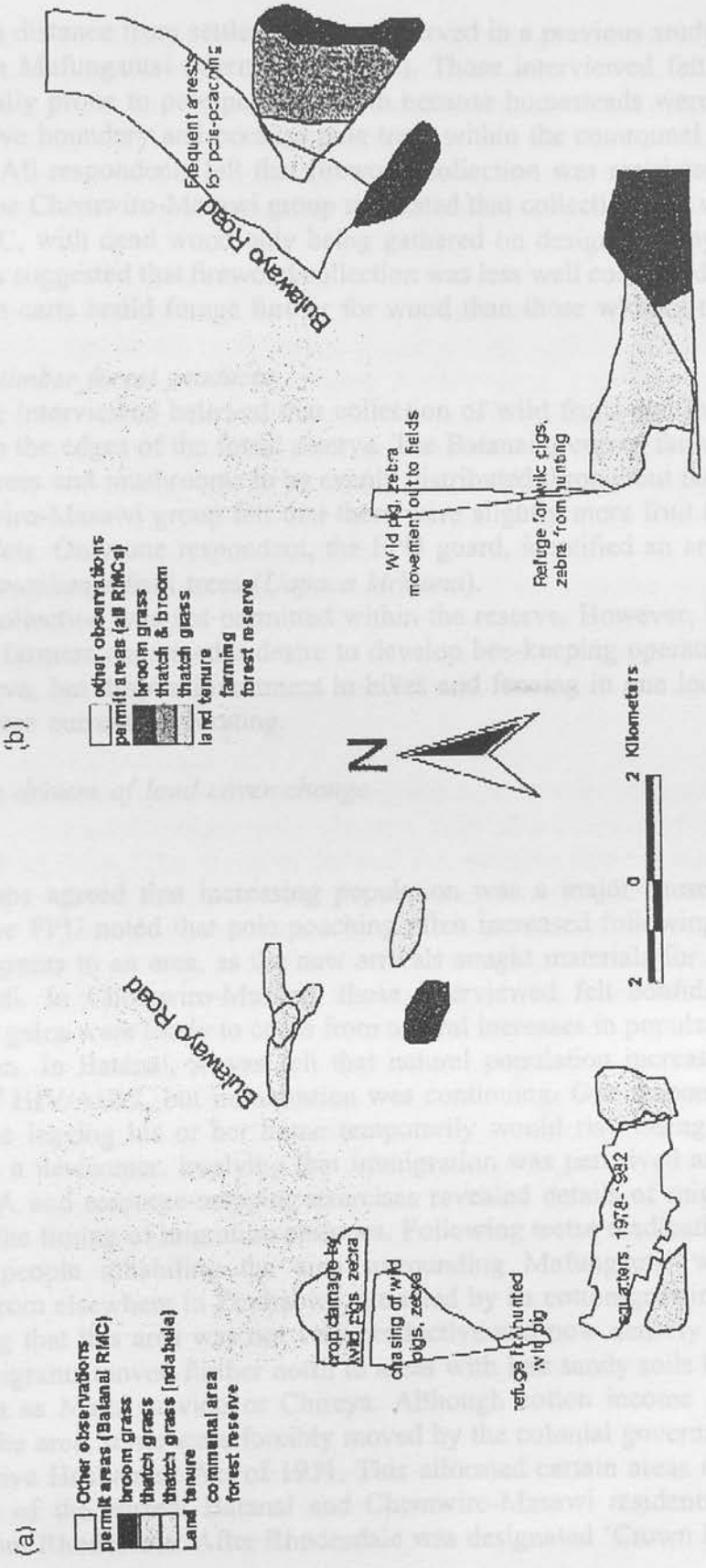

Fig. 3. Patterns of land uses in the Batanai area of Mafungautsi reserve as described: (a) by smallholder farmers; (b) by the Forest Protection Unit (FPU).

cutting with distance from settlement was observed in a previous study of basal area plots within Mafungautsi (Vermeulen, 1996). Those interviewed felt that this area was especially prone to pole-poaching both because homesteads were located close to the reserve boundary and because pole trees within the communal area had been exhausted. All respondents felt that firewood collection was restricted to the forest margins. The Chemwiro-Masawi group suggested that collection was well controlled by the RMC, with dead wood only being gathered on designated days. In Batanai, respondents suggested that firewood collection was less well controlled and that those with Scotch carts could forage further for wood than those without transport.

Other non-timber forest products

All those interviewed believed that collection of wild fruits and mushrooms was restricted to the edges of the forest reserve. The Batanai group of farmers considered both fruit trees and mushrooms to be evenly distributed throughout the forest, whilst the Chemwiro-Masawi group felt that there were slightly more fruit trees along the edges of *vleis*. Only one respondent, the FPU guard, identified an area with a high density of *mazhanje* fruit trees (*Uapaca kirkiana*).

Honey collection was not permitted within the reserve. However, both groups of communal farmers expressed a desire to develop bee-keeping operations within the forest reserve, but despite investment in hives and fencing in one location, no such schemes were currently operating.

Underlying drivers of land cover change

Population

All groups agreed that increasing population was a major cause of vegetation change. The FPU noted that pole-poaching often increased following the arrival of new immigrants to an area, as the new arrivals sought materials for housing within Mafungautsi. In Chemwiro-Masawi, those interviewed felt confident that future population gains were likely to come from natural increases in population rather than immigration. In Batanai, it was felt that natural population increase was slowing because of HIV/AIDS, but immigration was continuing. One respondent suggested that anyone leaving his or her home temporarily would risk losing their land and housing to a newcomer, implying that immigration was perceived as ongoing.

The PRA and resource-mapping exercises revealed details of migrant characteristics and the timing of migration episodes. Following tsetse eradication, the original Shangwe people inhabiting the area surrounding Mafungautsi were joined by migrants from elsewhere in Zimbabwe, attracted by its cotton-growing potential. On discovering that this area was not very productive and now densely crowded, some of these migrants moved further north to areas with less sandy soils known as *Chidhaka*, such as Madzivazvido or Chireya. Although cotton income attracted immigrants to the area, some were forcibly moved by the colonial government as a result of the Native Husbandry Act of 1951. This allocated certain areas to white settlers and many of the current Batanai and Chemwiro-Masawi residents were forcibly evicted from Rhodesdale. After Rhodesdale was designated 'Crown Land', its popu-

lation was evicted in stages during the 1940s and 1950s (Ndanga, 1987; Nyambara, 1999). Others migrated from densely settled rural areas such as Zimuto, Chivhu, Chirimuhanzu, Gutu, Bikita, Gweru and Nkayi as a result of land shortages (Mehlo, 1970; Nyambara, 1999). Many immigrants to Gokwe tend to be wealthier than the original Shangwe people and some are former civil servants (mainly teachers). This meant that they had enough capital to buy inputs for cotton farming.

Declining soil fertility and crop yields

Declining soil fertility was cited as a major cause of land hunger in both RMCs. This is mainly due to the local Kalahari sandy soils, which are productive during initial cultivation but quickly lose their fertility over time (Manyame, personal communication). Most communal farmers historically countered this problem by cultivating extensively, but this is increasingly difficult due to the shortage of virgin land. Indirectly, declining soil fertility increased pressure on the forest reserve by reducing the land available for planting eucalyptus within the communal areas. In Batanai, some farmers cultivated stream-beds to overcome declining yields. In Chemwiro-Masawi, most farmers held that fertilizers did not improve yields in the predominantly sandy soils there and so even greater input availability would not counteract declining soil fertility. Such scepticism about fertilizer effectiveness was also found in an earlier study of Mafungautsi (Matose, 1994).

Regulation and enforcement

Aside from the independence war, when lack of enforcement enabled migrants to settle in Mafungautsi, enforcement changes have also profoundly influenced land cover at other times. The group at Batanai felt strongly that the number of people arrested when entering Mafungautsi had increased sharply in the previous ten years. Not only were perimeter patrols more frequent, but offenders were now more likely to be prosecuted and fines had become more expensive. This stricter enforcement was the principal reason why the group considered tree cover within Mafungautsi reserve to be increasing, while it was simultaneously decreasing in the surrounding communal areas. This observation is supported by quantitative data on the number of arrests within the reserve, which rose from an average of eight per year in 1991–4 to 16 per year in 1995–8. However, such prosecution figures are only a crude indicator of enforcement and may also reflect changes in poaching levels. The Chemwiro-Masawi group also felt that enforcement had become stricter, both because fines were more expensive and because the RMC were now involved in enforcement.

Discussion

Participatory mapping

Previous studies have examined land use and land cover change by combining remote sensing with a variety of interview techniques. In the UK, questionnaires were used to assess the impact of farming on vegetation change (Potter, Barr, &

Lobley, 1996), whilst in Ethiopia ecological time-lines were used to reconstruct histories of land cover change (Reid et al., 2000). In Kenya, interviews focusing on land use were conducted while walking along vegetation transects with respondents (Mahiri, 1997), and in Cote d'Ivoire group discussions with herders were used to identify the drivers of changes in savannah landscapes (Bassett & Bi Zueli, 2000). In this study, semi-structured interviews were combined with participatory mapping using photo-mosaics. The advantages of this technique were that it yielded land use maps that could be easily geo-referenced and related to remote-sensing data, whilst being sufficiently flexible to explore unanticipated themes that arose during interviews. It thus represents a promising addition to the range of interview techniques available for exploring land use and land cover change.

Participatory mapping revealed greater detail about the timing and causes of land cover change than aerial photo analysis alone. Previous studies have identified substantial variation in both socioeconomic characteristics and vegetation in many of Zimbabwe's communal areas (Jackson & Collier, 1988; Campbell, du Toit & Attwell, 1989). Whilst this local variability was apparent in PRA and group interview data, it is not discernible from government data sources. For example, the interview data here suggested that in eastern Batanai, settlements were close to the forest margin, thus leading to greater crop damage by wildlife and pole-poaching. Such local variations in settlement patterns are not apparent in census population counts, which are available for the whole of Batanai RMC only. Specific events that affected land cover and its drivers—such as the evictions that took place under the Native Husbandry Act—could only be identified through interviews on the ground. This lends weight to the need to marry technical methods with participatory approaches (cf. Elliot & Campbell, 2001).

However, one difficulty with the participatory mapping technique in a developing-country context lies in distinguishing the relative impact of discussion group composition versus geographical location on interview results. In this study, the different results in the Chemwiro-Masawi and Batanai interviews were in part due to geographical differences between the two RMCs and partly due to differences in group composition (i.e. the presence of senior community representatives and RMC members in one group, but not in the other). In a rural developing-country setting, where respondents may be travelling some distance to attend interviews on an allocated day, standardizing group composition across different sites is in practice difficult to achieve (Goebel, 1996).

Land cover change at Mafungautsi

The FPU perceived land cover change somewhat differently to the smallholder farmers living on the forest reserve margins. Whilst many of the farmers felt that tree cover within the reserve had increased, the FPU felt that tree cover was stable with localized losses due to pole-poaching. The farmers were also more acutely aware of the loss of tree cover in the communal areas than the FPU. Such differences in perception of land cover change have also been found in other studies that combined interviews with remote sensing in West Africa. Fairhead and Leach (1996)

described how technical officers may interpret local developments so as to justify their own interventionist policies. The differing perceptions of land cover change between the Batanai farmers and the FPU could be due to the latter's need to maintain their status. By suggesting that forest cover in the reserve was unchanged, the FPU could justify their presence as a barrier against forest degradation. In the Gokwe study sites, women were more aware of a reduction in vegetation cover, probably due to their key role in firewood collection and the need to walk further as fuel wood became scarcer. This awareness of forest cover among women concurs with previous work (Clarke, Cavendish, & Coote, 1996), which found that women knew of uses for a greater number of tree species than men.

Underlying tensions between many of the key actors at Mafungautsi became apparent during the course of the study. Some neighbouring communal farmers had cultivated land within the reserve during the period of weak enforcement from 1978 to 1983 and subsequently been expelled. This group still felt entitled to the gazetted land within the reserve and resented the presence of the FPU in enforcing the reserve's boundaries. When co-management was introduced, it was seen as a mechanism for resolving this conflict (Matzke, 1993; Nhira, Baker, Gondo, Mangono, & Marunda, 1998). However, the FPU clearly felt that the new RMCs contributed little to enforcing regulations within the reserve, whilst one RMC was criticized for not distributing income generated through co-management more widely within the community.

Given the evidence presented here, it seems likely that the communal areas surrounding Mafungautsi will experience ever-declining tree cover, unless participatory action is taken. Even without any local population increases, this trend seems likely to continue because of soil fertility decline and because of felling by remote actors. If current land use drivers continue to operate, the remaining communal woodland is likely to shift in composition towards fruit trees and eucalypts as felling continues and some farmers take up incentive schemes for tree-planting. Within Mafungautsi, increased pole-poaching seems likely without greater economic incentives for local communities to respect the reserve's boundaries. The gazetting of Mafungautsi resulted in local communities perceiving it as state property and the 'withdrawal' of traditional forestry conservation practices within the gazetted area. Imposed solutions, such as the rural afforestation programme (Whitlow, 1988; Elliot, 1991; McGregor, 1995), appear unsustainable in the long term and there is a need for local solutions adapted to the particular social, economic and political circumstances in Mafungautsi.

Future research

In this study, interviews based around aerial photographs were used to analyse historical patterns of land cover change. All respondents were able to interpret the photographs, but it was apparent that their perceptions of change varied. One way of resolving such differences may be to use discussion based around aerial photographs as a tool for planning future natural resource use. For example, permit zones for thatch and broom collection could be delineated through a discussion process

between the Forestry Commission and the RMCs, referring to relevant aerial photographs as necessary. This approach has already proved successful in one study of forest resource conflicts in Nepal (Mather, de Boer, Gurung & Roche, 1998).

This study has highlighted the importance of integrating GIS and participatory approaches to explain vegetation covers in two RMC areas in Gokwe. This dialogue between technical and participatory research methods empowers local people to counter 'technical wisdom' using participatory technical tools. However, these two case study areas may not be typical of Mafungautsi Forest Reserve as a whole, since only localized changes were assessed and not the entire reserve area. Furthermore, there may be conflicts in natural resource use *amongst* the different RMCs, particularly as different communities may graze cattle or collect firewood in the same geographical areas. There is therefore a need to undertake similar research across a broader area and covering more RMCs. Future work could also examine vegetation change over a longer period of time, since aerial photographs are available for earlier years. Research in West Africa (Fairhead & Leach, 1996) has shown that there may be cycles of expansion and contraction of vegetation cover and this cannot be deduced by analysing a short time period.

In this study, participatory mapping using aerial photography and PRA were carried out in parallel by different groups of respondents. However, a more useful approach may be to undertake an initial PRA exercise, followed by photo-based interviews with several groups differentiated on the basis of the PRA. The initial PRA exercise with a large group could identify key sub-groups within the community on the basis of gender, age, wealth or length of residence. This group could then be separated into different sub-groups for the aerial-photo-based interviews. In this way, different perceptions of land cover change *within* the same community (e.g. between men and women) could be identified.

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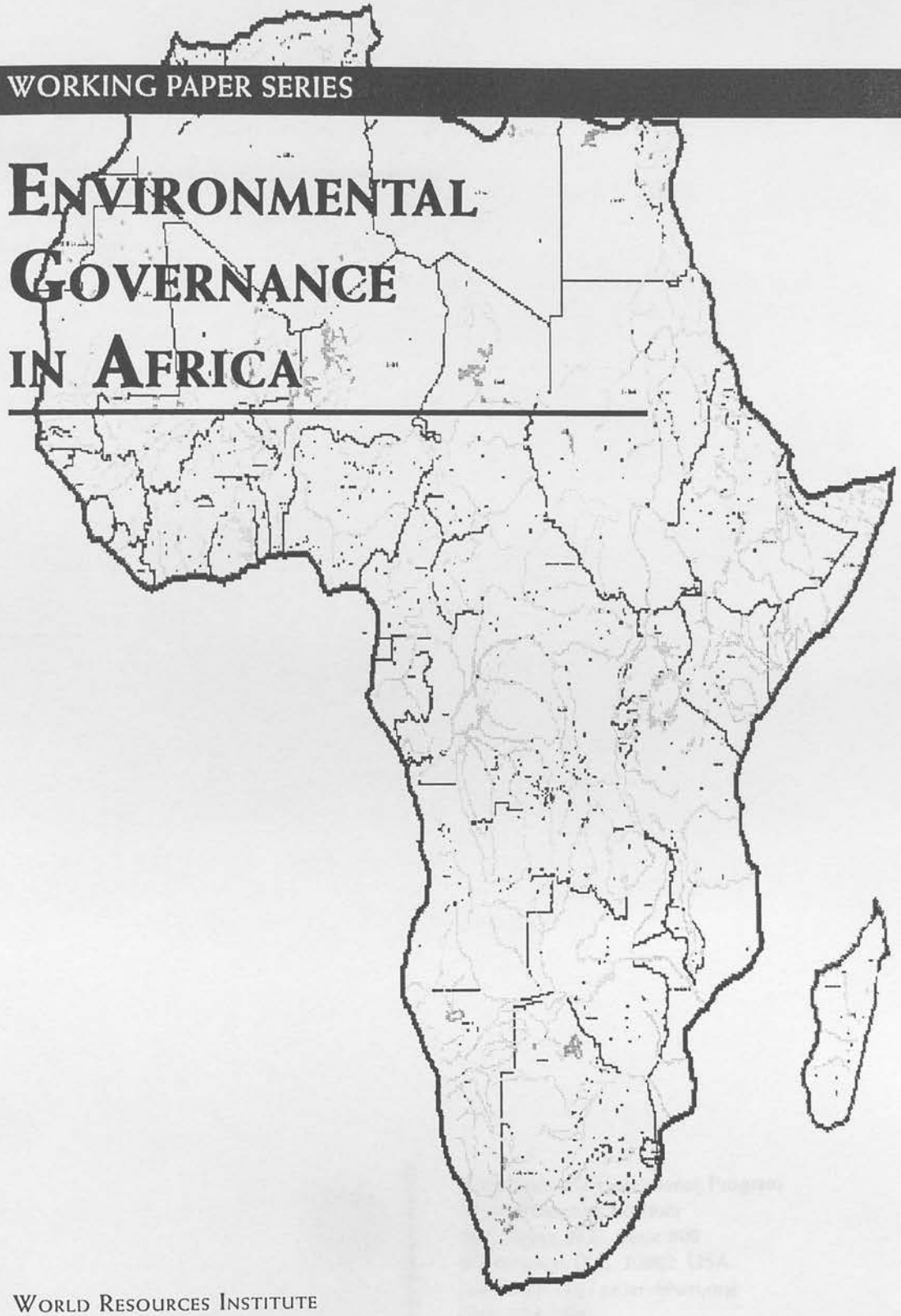

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ENVIRONMENTAL GOVERNANCE IN AFRICA
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CO-MANAGEMENT IN THE MAFUNGAUTSI STATE FOREST AREA OF ZIMBABWE – WHAT STAKE FOR LOCAL COMMUNITIES?

by

Everisto Mapedza and Alois Mandondo

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ABSTRACT

Although governance innovations that involve moving powers closer to the citizens are receiving increasing policy support, their implementation is not without problems. This study uses a review and case study approach to critically examine the contradictions and ambiguities of "peasant empowerment" in a co-management venture between Zimbabwean foresters and peasant communities. The institutional infrastructure for co-management was derived from and superimposed upon a complex web of local power bases, further fragmenting existing networks of interest, affection and association, and thus limiting the scope for co-management. The legislative environment, at least during the pre-2000 period, supported the expropriation and control of the land and resources of peasant communities, thus contradicting the underlying principle of co-management, which is that of equal partnership. Powers over natural resources have remained centralized in the national state; the little power that has been decentralized has been transferred to levels that are not close enough to the citizens. Furthermore, there is no legislation that gives a legal mandate and fiscal autonomy to units closer to the citizens than the district level. The co-management venture is "supply-led" rather than "demand driven", originating in international development assistance circles, and implemented on the terms and conditions of their allies in the state bureaucracies responsible for natural resource management. However, in spite of their marginalization, peasant communities have a wide repertoire of tools, which enable them to significantly penetrate local and national political processes. The study identifies the need for fundamental changes in the co-management system, including the creation of downwardly accountable institutions and experimentation with new co-management relations. It argues that such changes require related reversals in the ways that researchers, policy-makers, civil society organizations and other facilitators have traditionally conducted their business. The central thesis is that the state and other external actors have sought to mold and discipline local institutions in order to achieve top-down conservation objectives.

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ACRONYMS

AGRITEX	Department of Agricultural, Technical and Extension Services
CAMPFIRE	Communal Areas Management Program for Indigenous Resources
CIDA	Canadian International Development Agency
FC	Forestry Commission
FPU	Forest Protection Unit
ORAP	Organization of Rural Associations for Progress
RDC	Rural District Council
RMC	Resource Management Committee
VIDCO	Village Development Committee
WARDCO	Ward Development Committee

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INTRODUCTION

Background

The transfer, through decentralization reforms, of governance powers to units that are closer to the citizens, has been gaining increasing significance for governments in developing countries (Mawhood 1983; Crook and Manor 1998; Ribot 1999). The term decentralization entails a process whereby bundles of "entrustments" – including regulatory and executive powers, responsibility and authority in decision making, institutional infrastructure and assets, and administrative capacity - are transferred to local entities, such as local governments or local communities. Entrustments can be defined as the responsibilities given to lower level structures from above (Ribot 1999, 2001). In practice, decentralization reforms generally turn out to be disjointed and complex processes, having to operate within arenas characterized by the contestation and negotiation of interest between and within various levels of society (*cf.* Moore 1993; Peet and Watts 1996; Tsing 1999).

This study focuses on one particular form of decentralization, namely the co-management of forest resources. It uses review and case study approaches to critically examine the ambiguities and complexities of "peasant empowerment" through co-management of a protected forest in Zimbabwe. The study questions benign-sounding presumptions, often implicit in the design of such projects, that there is an equal partnership between the actors in the co-management arrangement. It argues instead that in real-life situations, the extent of community empowerment through co-management depends on the interaction of interests of the various actors involved in a particular site, including states, international organizations, business enterprises and grassroots actors. The central thesis is that the state and other external actors have sought to mold seemingly local institutions and have tried to discipline these institutions in order to achieve top-down conservation objectives. The study shows that there is little scope for genuine local empowerment in partnerships in which the communities, or committees intended to represent them, are being manipulated. However, it also shows that communities are not docile and that they have their own mechanisms for responding to such manipulation.

Research Sites

The area of study was the Mafungautsi State Forest in the Gokwe South District of Zimbabwe.[1] Gokwe South District came into existence due to the Rural District Councils Act of 1988, which was implemented from July 1993. This Act is known as the "amalgamation" act, because its main aim was to amalgamate the local authorities responsible for "commercial" and "communal" farming areas within each district. However, it also resulted in some changes to district boundaries and in Gokwe District, where there were no large-scale commercial farms, its main impact was the division of the district into two: Gokwe North and Gokwe South.

[1] Mafungautsi is the correct Shona name for a place where there is mist or smoke. Most documents and reports refer to Mafungautsi as Mafungabusi, which is a corrupted version used by the colonial administrators.

The research was conducted in two areas bordering the Mafungautsi Forest, namely Batanai and Chemwiro-Masawi. These areas constitute two of the 15 *resource management committees* (RMCs) formed by Zimbabwe's Forestry Commission (FC) under the co-management arrangement in the Mafungautsi area. They were selected on the FC's advice, on the grounds that they represented one successful RMC (Batanai) and one failure (Chemwiro-Masawi). The research revealed, however, that "success" and "failure" are not useful criterion, since, in the eyes of the FC, "success" is measured not so much in terms of the achievements of the RMC, but by how amenable the RMC is to manipulation by the FC. The RMCs that stand their ground are labeled "failures".

There were, however, other valid reasons for the choice of these RMCs. Batanai is situated in an area that was formerly forestland, and some people within Batanai were evicted forest dwellers. This offered a contrast with Chemwiro-Masawi, where few people used to reside in the forest area. Differences in attitudes towards co-management were assessed in the two areas in the light of their different historical relationship with Mafungautsi Forest. Chemwiro-Masawi was also selected because it had commercial timber extraction, and this provided the opportunity to see how dividends were allocated under the co-management arrangement. Some comparative research was also pursued in other RMCs, particularly Sokwela and Chemusonde. The findings will be cited in the text, but they were minor research sites.

Research Methods

The research was conducted mainly between September 1999 and August 2001. Towards the end of this period, the area began to be affected by the "land invasions" which have characterized much of Zimbabwe in the last few years. These land invasions involved the forceful and illegal occupation of mainly white-owned commercial farms by pro-government war veterans within the framework of the government's "Fast Track Land Resettlement", which is meant to address the nation's racial land imbalances. In some parts of the country, including Mafungautsi, these land invasions were extended to state land, such as forests. Although this research is not on the land invasions *per se*, it looks at how the invasions have impacted on the dynamics of co-management.

Prior to the identification of the case study RMCs, one of the researchers held interviews with most of the traditional and other local leaders in the proximity of Mafungautsi Forest Reserve. These included Chiefs Njelele (now deceased) and Mukoka, Headmen Chirima (now deceased) and Ndhlalambi, kraalheads, councilors, and chairpersons of village development committees (VIDCOs). Interviews were also held with representatives of government agencies (including the Forestry Commission (FC), Grain Marketing Board, Cotton Company of Zimbabwe, and departments such as Agricultural Technical and Extension Services (AGRITEX) and Natural Resources), the Gokwe South Rural District Council, a variety of non-government organizations (including the Organization of Rural Associations for Progress (ORAP), Kana Grazing Scheme, Batanai Burial Society and

Batanai Women[2] Garden Project) and with RMC members and some villagers. Some interviews were recorded on tape to be transcribed later. The oldest villagers, for example a man known as "vaOne", proved to be helpful "human archives". Official minutes of the RMC meetings and archival records were also consulted. The latter were an important source of information on the administrative background of Gokwe South District, from the time it was part of a much larger area known as the Sebungwe Region up to the partition of Gokwe District into Gokwe South and North in July 1993.

Following the selection of the study sites, the first author spent at least two months in each RMC. The same researcher also attended RMC meetings, workshops, development meetings and political party meetings. In instances where meetings were held in the absence of the researcher, research assistants took notes on all the proceedings. The researcher also attended traditional leaders' court sessions. Since the jurisdictions of these meetings do not correspond exactly with RMC boundaries, in a number of instances meetings outside the research area were also attended, especially those discussing issues pertinent to the research. Key informant interviews were also conducted, segregating groups according to gender and age differences and household profiles were conducted for some households. A total of 240 household questionnaires were administered, comprising 120 in Batanai and 120 in Chemwiro-Masawi.

Structure of the Paper

The rest of the paper is divided into five sections. The next section provides the background to co-management in Mafungautsi Forest. It documents the history of Mafungautsi, describes the role of the RMCs, which were put in place by the FC in order to represent the local community and regulate their conduct, and situates the co-management venture within the context of the complex institutional structure of the area. The RMCs were superimposed upon a multitude of existing social, political and administrative structures that are aligned to, and thus derive their legitimacy from, state or customary institutions. The section questions notions of distinctness and fixity of actors and interests that are often implicit in co-management visions, arguing instead that the overall effect of such superimposition is to further strain the underlying and fluid networks of interest, affection and association, thereby impairing the scope for co-management. An underlying assumption is that people have specific and non-changing interests. Societies are, however, dynamic and any intervention that does not seek to take cognizance of the dynamics of power within a society is unlikely to succeed.

The next section examines the "practical political economy" of co-management in Mafungautsi. It shows how the co-management venture lies at the intersection of social networks, and how the relations of interest and affection within them are in practice negotiated through elections, constitutions, land and resource claims, and varying definitions of concepts such as "resource", "management" and "sharing". The study

[2] All members of this organization are women except the villagehead who is also a member. The organization also acts as a savings and loan society, in which the members lend each other money to buy kitchen utensils; the village head buys utensils for his wife who is a member as well.

argues that co-management is confounded by the conflicting roles of the FC as a player, referee and coach within the ensuing milieu. It also shows that, although these roles are significant in shaping the environment and how peasants interact with it, the grassroots actors have a variety of ways in which they are able to influence social and political processes to achieve their own objectives.

The penultimate section shows that co-management in Mafungautsi is far removed from the democratization of forest management. It is a process where international development and national environmental protection interests are promoted and defended against a backdrop of competing peasant land and resource claims. The section identifies the origins of co-management, tracing its inception to international development assistance circles, and shows how it filtered its way into existence in a top-down fashion through the FC, which is a national government agency located within the ministry responsible for the environment. It also describes the costs and benefits that accrue to the local people from co-management.

The concluding section draws the study together, summarizing the ambiguities and contradictions of the co-management experience. It also suggests solutions to some of the conundrums that Zimbabwe's co-management approach presents, some of which lie beyond the forest sector.

BACKGROUND TO CO-MANAGEMENT IN THE MAFUNGAUTSI STATE FOREST

Origins of Co-Management

Mafungautsi State Forest Reserve is located in west central Zimbabwe (Figure 1). It is one of the 21 state forests falling under the control of the government's Forestry Commission. Covering some 82,100 hectares of forestland, it comprises almost 10% of the nation's 827,200 hectares of indigenous forest reserves, most of which are in the western parts of the country. Mafungautsi was designated a state forest in 1954. Like most such forests, its statutory designation involved the eviction of peasant communities who resided in that area at the time. Its history has, therefore, been characterized by tenurial and other conflicts between official state forest custodians and the surrounding peasant communities. Over the years the boundaries of Mafungautsi have expanded and contracted, reflecting the difficulty that both the FC and the local communities have had in asserting effective and exclusive control over the forest reserve.

The recognition that the conservation of forest reserves in Zimbabwe could only be secured with the support and cooperation of neighboring peasant communities dates back to the 1960s (Phillips *et al.* 1962). Over the years, a number of management systems have sought to involve local communities in resource management, ranging from "community development" in the 1960s (Mutizwa-Mangiza 1985), to "co-management" and "resource sharing" in the early 1990s (Matzke and Mazambani 1993; Matzke 1994)

and, most recently, "adaptive co-management".[3] However, as this case study demonstrates, despite these fashionable, populist-sounding labels, these systems have been structured mainly to achieve conservationist goals, rather than to empower the communities.

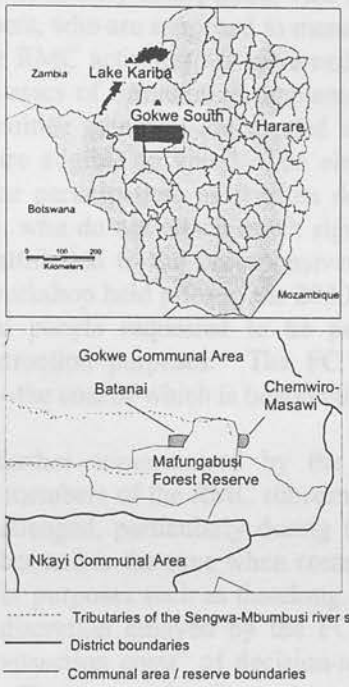

Figure 1: The Location of Mafungautsi State Forest

"Co-management" in Mafaungautsi is an international concept that filtered its way into local practice in a "top-down" manner through the FC. When a Rural Afforestation Program funded by the World Bank ended in the 1980s, the FC, desperately in need of external funding, wrote a new funding proposal. This proposal was initially submitted to the World Bank, but later revised to neatly meet the funding criteria of the Canadian International Development Agency (CIDA). CIDA provided funds for local experts to go to India on a study tour to learn from the Indian joint forest management experiences.

[3] The Centre for International Forestry Research has commissioned an extended research project on adaptive comanagement in Mafungautsi. Wollenberg (1998) identifies over 20 commonly used terms for local forest management, including "community-based natural resource management", "joint forest management", "collaborative management" and "resource sharing".

Resource Management Committees

Resource management committees (RMCs) were established in Mafungautsi by the FC as an essential part of the co-management package. The study will show, through the case study of Batanai and Chemwiro-Masawi RMCs which follow, that these new institutions introduced new dynamics within the Mafungautsi community. An RMC is typically composed of seven members, namely chairperson, vice chairperson, secretary, treasurer and three committee members, who are supposed to manage the forestry affairs on behalf of their communities. The RMC activities are governed by a constitution and the case study will analyze the processes of formulation, implementation and contestation of the RMC constitutions. Committee members are elected into office through elections in which all adult villagers are eligible to vote.[4] The election of RMCs is a confusing process in terms of popular participation, as it often does not generate much interest among the potential voters, who do not attach much significance to the elections. This lack of interest could be attributed to the unresponsiveness of the FC to the people's needs. For instance, at a workshop held prior to the 2000 grass-cutting season at Shingai Training Center, the local people requested to be permitted to collect fiber on a sustainable basis for construction purposes. The FC responded by saying that the peasants should buy ropes—the cost of which is beyond the reach of peasant farmers.

Popular participation is further compromised by the fact that, when it comes to determining who serves as members of the RMC subcommittees, the FC wields advisory powers that are hardly challenged, particularly during the grass-cutting season, which extends from June to October and is the time when community members have access to the forest to collect grass for purposes such as thatching. The cast study will show that, although this window of discretion enjoyed by the FC may be well intentioned (for example, to reduce the "transaction costs" of decision-making during a period of high labor demand), its overall effect is to subordinate democratic processes to bureaucratic fiat. The arrangement reinforces a top-down orientation of the committee.

Role of RMCs in the Local Socio-Political Structure

The organizational structures in the study area are, as already indicated, quite complex. The RMCs are only one of many overlapping committees that have been or are being set up by authorities at the sub-district level (see Figure 2). A Prime Minister's Directive of 1984 introduced *village and ward development committees* (VIDCOs and WARDCOs), ostensibly to decentralize and democratize the process of planning for local development.

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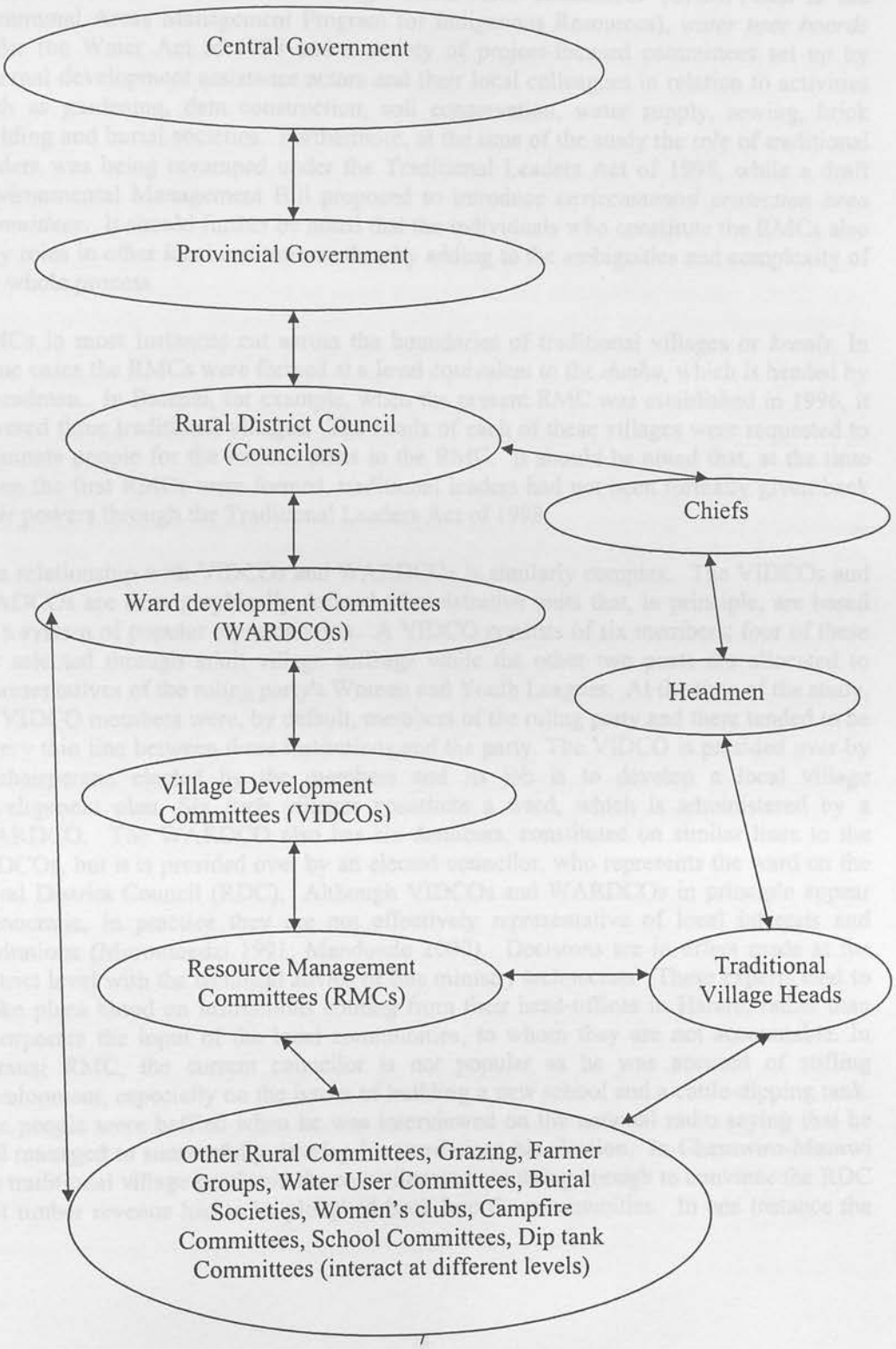
[4] Any adult resident within the village, including immigrants, above the age of 18, is entitled to vote. In some instances this "right" can be manipulated to meet specific ends. For instance a 30 year old man was disqualified from standing for councilorship as he was said to belong to the youth in terms of the ZANU PF structures. Immigrants with new ideas and perceived to be ambitious were often referred to as *'Mafikizolo'* meaning recent arrivals. At a meeting to discuss development issues with the national broadcasting agency, the Zimbabwe Broadcasting Corporation (ZBC), the immigrants were accused of trying to usurp power, as they have no understanding of how issues have "traditionally" been resolved in Gokwe South. A close associate of the councilor murmured that that's why they no longer wanted immigrants.

Figure 2: A Simplified Institutional Organogram of Zimbabwe's Rural Local Governance System



They were established over and above the existing traditional institutions. Subsequently, various government and non-government organizations have introduced other committees, such as *ward and village CAMPFIRE committees* (CAMPFIRE is the Communal Areas Management Program for Indigenous Resources), *water user boards* under the Water Act of 1998 and a variety of project-focused committees set up by external development assistance actors and their local colleagues in relation to activities such as gardening, dam construction, soil conservation, water supply, sewing, brick molding and burial societies. Furthermore, at the time of the study the role of traditional leaders was being revamped under the Traditional Leaders Act of 1998, while a draft Environmental Management Bill proposed to introduce *environmental protection area committees*. It should further be noted that the individuals who constitute the RMCs also play roles in other local institutions, thereby adding to the ambiguities and complexity of the whole process.

RMCs in most instances cut across the boundaries of traditional villages or *kraals*. In some cases the RMCs were formed at a level equivalent to the *dunhu*, which is headed by a headman. In Batanai, for example, when the present RMC was established in 1996, it covered three traditional villages. The heads of each of these villages were requested to nominate people for the various posts in the RMC. It should be noted that, at the time when the first RMCs were formed, traditional leaders had not been formally given back their powers through the Traditional Leaders Act of 1998.

The relationship with VIDCOs and WARDCOs is similarly complex. The VIDCOs and WADCOs are demographically defined administrative units that, in principle, are based on a system of popular representation. A VIDCO consists of six members; four of these are selected through adult village suffrage while the other two posts are allocated to representatives of the ruling party's Women and Youth Leagues. At the time of the study, all VIDCO members were, by default, members of the ruling party and there tended to be a very thin line between these institutions and the party. The VIDCO is presided over by a chairperson elected by the members and its job is to develop a local village development plan. Six such villages constitute a ward, which is administered by a WARDCO. The WARDCO also has six members, constituted on similar lines to the VIDCOs, but it is presided over by an elected councilor, who represents the ward on the Rural District Council (RDC). Although VIDCOs and WARDCOs in principle appear democratic, in practice they are not effectively representative of local interests and aspirations (Murombedzi 1991; Mandondo 2000). Decisions are in effect made at the district level with the technical advice of line ministry technocrats. These experts tend to make plans based on instructions coming from their head-offices in Harare, rather than incorporate the input of the local communities, to whom they are not accountable. In Batanai RMC, the current councilor is not popular as he was accused of stifling development, especially on the issues of building a new school and a cattle-dipping tank. The people were baffled when he was interviewed on the national radio saying that he had managed to successfully develop his ward since his election. In Chemwiro-Masawi the traditional village head said the councilor was not doing enough to convince the RDC that timber revenue had to be ploughed back into the communities. In one instance the

village head attended a Gokwe South RDC meeting himself, in order to push through a request to get proceeds from commercial timber logging.

The introduction of RMCs under the co-management initiative was regarded by the FC as part of the Government's wider decentralization process, of which the VIDCOs and WARDCOs were a critical part.[5] The committees were originally intended to be subcommittees of the VIDCOs. Confusingly, however, RMCs were sometimes constituted at a higher level, covering an area comprising more than one VIDCO and sometimes a whole ward. For example, the first RMC in Batanai, which was established in 1995, was at ward level and covered four VIDCOs; but in 1996 this was dissolved and four VIDCO-level RMCs were established. Whilst RMCs such as Batanai broke up into smaller units, some of the RMCs coalesced into larger units. These variations in their level of operation have resulted in some form of "crisis of identity" for the RMC. The question of scale with respect to size of units for local natural resource management is important in common property resource debates (McCay and Acheson 1987; Ostrom 1990; Berkes and Farvar 1989; Murphree 1991). Small units are favored because people are assumed to be in everyday contact, which is thought to foster social cohesion, and thus reduce the transaction costs associated with resource use and management.[6] The evolution, in Mafungautsi, of RMCs across a range of scales is probably a reflection of complexity of local ecological systems and the contestation and negotiation of interest within and across various social groups. Rather than being seen as a problem requiring institutional "packaging", it lends weight to Murphree's (1990) argument that "small" has to be conceptualized with respect to ecological and socio-political constraints.

The VIDCOs and WARDCOs were not created in an institutional vacuum; they were, as already indicated, superimposed on a "traditional"[7] system of social organization. In this system the household (*musha*), under a patrilineal household head (*samusha*), comprises the smallest social unit. Several households constitute a village (*bhuku*) under the village head (*sabhuku*). Several villages constitute a *dunhu*, presided over by a headman (*sadunhu*), and these in turn constitute chiefdoms (*nyika*) under the chief (*mambo*). Related traditional institutions include spirit mediums, rainmakers and other holders of ritual office (Bourdillon 1991).

The role of RMC chairpersons is difficult because they lack the authority of other local leaders. Even their fellow committee members question their legitimacy. In an interview on 4 November 1999, the Batanai RMC Chairperson, when asked why he was not effectively mobilizing the people, pointed out that he needed to mobilize the RMC itself before moving to the ordinary peasant farmer. Some reminded him that he was not the

[5] Decentralization of power and responsibilities were cited as one of the principles of comanagement in Mafungautsi (FC 1997)

[6] Researchers including its early proponents (Ostrom 1990) have empirically and theoretically questioned the proposition that small size units are necessary for common property resource management

[7] Most of the so-called traditional institutions were remolded to extend colonial rule over the African population through a system of indirect rule. For instance, the term *sabhuku* literally and symbolically means the keeper of the book - i.e. records of taxes extracted from the African population by the colonial governments through these leaders. *Bhuku* is a "*Shona*lised" English word for book.

villagehead or the headman. "Institutional ranking" exercises[8] were conducted in both research sites and, for comparative purposes, in another village, called Mutanhaurwa. In Batanai and Mutanhaurwa, traditional leaders consistently ranked higher than RMC members – or, in fact, other leaders, such as the councilor or MP. In Chemwiro-Masawi, RMC members were initially ranked higher than traditional leaders but this position was later reversed. The reasons for this change will emerge later.

One must not, however, over-romanticize the respect given to traditional leaders. Some traditional leaders are even less democratic than the elected committees. In Batanai, a village head was assaulted for handing down a ruling that, according to the defendant, was "biased". Manipulation of these leaders by government authorities may result in traditional leaders, who are not normally subjected to democratic electoral processes, becoming more autocratic than elected committees. Furthermore, the position of traditional leaders is dynamic and they are constantly faced with new challenges. Village heads in both Batanai and Chemwiro-Masawi lamented the loss of control over their people as a result of challenges from new churches, mainly the Seventh Day Adventist (SDA) church.

The VIDCO-WARDCO and traditional systems of leadership rely on different forms of legitimization, which produces conflict between them. Each has its own regulatory system. VIDCOs and WARDCOs are part of an official regulatory system, which is "top-down" and "rational-legal" in nature and bears little relation to local cultural systems. Traditional regulatory mechanisms include explicit rules as well as implicit norms and taboos, including a moral economy of rules that are written within the hearts of the people. Local censure mechanisms include payment of material fines, admonition and belief in the omnipotence of the spirits and spiritual censure (Matowanyika 1991; Mandondo 1997). An example of the application of traditional judicial systems to natural resource conservation is a judgment made by Headman Ndhlalambi in Batanai on the 29 June 2000, when nine people were each ordered to pay Z$490[9] for cutting down fruit trees for various purposes.

The role of the new RMCs is thus not a simple matter of "top-down" "disciplining" for conservation objectives; the new organizations find themselves entangled with both bureaucratic politics (at multiple scales) and local politics (*cf.* Ferguson 1990). The Chemwiro-Masawi pre-grass cutting workshop recommended that the RMCs should be a subcommittee reporting through the village head. In Batanai, however, the councilor, in an interview with one of the researchers on 2 September 2000, argued that the RMCs were not going to succeed as they were hiving themselves off from him as the representative of the RDC by jointly organizing meetings with the FC without notifying

[8] Institutional ranking is an exercise where people rank institutions operating in their community based on the various criteria such as responsiveness to local needs, feedback mechanism, accountability. This is some form of a proxy voting mechanism as it shows institutions that are positively contributing in a given area.

[9] Officially, one US dollar is equivalent to 55 Zimbabwe dollars. It is not a market-determined rate, but an artificial rate fixed by the state. On the parallel market the US dollar was trading for as much as 200 against the Zimbabwe dollar at the time of the study.

him. He further argued that a proposed school in Batanai would not materialize, as he would have to fight to assert his power over the traditional headman of the area. The councilor even tried to link the headman to the opposition party so that he would be forced out of office. In one instance a resignation letter, purportedly written by the headman, was sent to the chief. Further investigations showed that the headman's date stamp had been forged. The councilor wanted to take over from the headman following the government's recent introduction of monthly allowances for traditional leaders. He likened Batanai people to the grass bearing the brunt of two elephants fighting (himself and the headman).

In both Batanai and Chemwiro-Masawi there were also conflicts between traditional leaders and VIDCO members. The latter viewed themselves as having positively contributed to the liberation of Zimbabwe from the colonial administration, which resulted in independence in 1980. They labeled traditional leaders as collaborators with the colonial administration. It should, however, be noted that there were also conflicts within VIDCOs in the Gokwe South area. The conflicts were between members of the two parties which fought in the liberation war, namely the Zimbabwe African National Union (Patriotic Front) (ZANU PF), whose members were mainly Shona, and the Zimbabwe African People's Union (ZAPU), composed mainly of Ndebeles.[10]

In practice, the two administrative systems - traditional leadership and the VIDCO-WARDCO system - have over the years permeated and contaminated each other, such that practical interaction in everyday social practice reflects a mix of both. The extent of blending varies from time to time and from place to place, depending on preference, precedence and other factors. Representatives of the Gokwe South RDC, interestingly, felt that the institutional multiplicity and confusion was going to be solved through awareness workshops, which would define roles for all the different committees and sub-committees.

Meanwhile, however, the Traditional Leaders Act of 1998 has further confused the situation by introducing a new system of village and ward assemblies. These are composed of a curious mix of elected and nominated leaders and representatives. Membership of the village assembly is open to all adults in the village, but such bodies are presided over by hereditary traditional leaders, whose nominations and appointments are approved by chiefs and the minister - "in accordance with local culture".[11] A ward council is composed of village heads of the constituent village assemblies, the ward councilor and a cohort of headmen nominated by chiefs and endorsed by the Minister of Local Government, Public Works and National Housing. The ward assembly is presided over by a headman elected by members of the assembly from among themselves. Village assemblies elect VIDCOs and supervise and approve plans from these VIDCOs, whilst ward assemblies oversee all the roles and activities of their constituent VIDCOs.

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[10] ZAPU was the second largest political party in Independent Zimbabwe. It merged with ZANU (PF) through the Unity Accord of 22 December 1987, paving the way for its leader, Dr. Joshua Nkomo, to become the co-Vice President in Zimbabwe.

[11] Traditional Leaders Act of 1998.

The new superintendence of headmen and village heads over VIDCOs and WARDCOs elevates the position of traditional leaders in relation to elected representatives, thereby reversing the situation that had existed since the Prime Minister's Directive of 1984. Furthermore, the hierarchical process of approving hereditary nominees (village head, to headman, to chief, to minister) potentially creates a system of patronage, in spite of the provision that such leaders should be appointed "in accordance with local culture". The new allowances for chiefs and headmen, which were introduced in conjunction with the implementation of the Act, are now widely viewed as a patronage mechanism, designed to enable the ruling party to maintain electoral support in the face of stiff competition from the opposition party. Traditional leadership is based on gender, seniority and caste; it is normally conferred upon male elders of certain lineages, in line with the erstwhile "decentralized despotism" administrative model of the colonial period (*cf.* Mamdani 1996, 1999).[12] The introduction of remuneration for both the chief and headmen, and possibly in the future village heads, has set in motion new struggles and dynamics, as evidenced by the conflict between the Batanai councilor and headman noted earlier. This conflict has recently taken a new dimension; the councilor now wants the ward to be split into two, so that he becomes the headman for the other ward, a better paying post than the one of councilor, which relies on allowances and is subject to re-election.

The imposition of village and ward councils upon VIDCO-WARDCO and traditional leadership systems is thus a recipe for further conflict. And the likelihood of conflict is aggravated when foresters seek to enlist local support for conservation through the creation of partnership committees that should potentially be representative of and linked to all these systems. Overlapping, discordant and ever-changing memberships and degrees of interest, affection and association within and between these systems and units further add to the contradictions inherent in the forging of locally legitimate RMCs.

THE PRACTICAL POLITICAL ECONOMY OF CO-MANAGEMENT IN MAFUNGAUTSI

Introduction

The term "practical political economy" is used by Li (1996) to refer to patterns of practical interaction resulting from everyday social practice. According to Tsing (1999), it is an analytical concept that reflects the contestation and negotiation of interest among and between stakeholders (Tsing 1999), while Walker (1995:1) defines it as "how human practices of resource use are shaped by social relations at multiple levels over time". This section considers the practical political economy of co-management in Mafungautsi. The analysis draws mainly from the experiences emerging from the two case study RMCs, namely Batanai and Chemwiro-Masawi.

[12] It is important to note that despite having more support than councilors, traditional leaders are not subjected to the electoral process and this tends to weaken their downward accountability.

Inception, Election and Representativeness of RMCs

The principal research sites, which are Batanai and Chemwiro-Masawi RMCs, show considerable differences with regards to their social geography and political history. The Batanai area was once part of the Mafungautsi forest reserve but it was de-gazetted in 1972 to resettle people who had been evicted from the forest reserve in the 1960s. People displaced as a result of conflicts between ZANU PF and ZAPU during the 1980s (usually known as the "dissident era")[13] were also settled in the area. In terms of ethnic composition, the people of Batanai belong mainly to the Shangwe and other Shona ethnic groups, but with a small proportion of Ndebeles. Batanai RMC falls under Ndhalalambi ward, which has a longer border - some 46 kilometers - with the forest reserve than any other ward. Chemwiro-Masawi, on the other hand, has always been a communal area, in which people have been settled for a longer time. The population is mostly Shangwe, and the proportion of Ndebele people in the area is even lower than in Batanai.

Co-management was, as already indicated, introduced into Mafungautsi in a "top-down" manner by the FC, as part of a project funded by the Canadian International Development Agency (CIDA). In both Batanai and Chemwiro-Masawi, the inception of the RMCs was at the behest of the FC, who encouraged communities to form RMCs in order to benefit from donor funds earmarked for co-management. CIDA's funding practices, which required that baseline surveys be conducted before the release of funds for RMC-building activities, influenced the FC's co-management proposal. In Batanai the original RMC was, as noted earlier, instituted at ward level and it encompassed four VIDCOs, while the RMC in Chemwiro-Masawi included two VIDCOs. Although the inception of RMCs in both areas reflects differences in local organizational complexity, in neither area did the boundaries of the VIDCOs, and thus of the RMCs, coincide with those of other administrative units, notably traditional villages, territories under the control of headmen and chiefdoms.[14] The overall effect of such superimposition has been to fragment local networks of interest, affection and association. A number of RMCs that encompassed more than one VIDCO acknowledged the difficulties that emerge from working with people who are used to doing things in a different way. This seems to weaken the unity of purpose for the people, who normally do not share common boundaries.

RMCs are supposed to be constituted through elections. In practice, however, the democratic nature of the elections is impaired by a variety of factors, including cases of manipulation and subversion by the FC, which oversees and endorses the process. For instance, an interesting medley of parallel inaugural elections occurred in Batanai in 1995. Owing to an administrative confusion (due in part to the fact that the RMC encompassed more than one VIDCO), two elections were held simultaneously: one at Nyaradza Business Center and one at Batanai Business Center. The FC officially endorsed the results of the former rather than the latter, because those elected included

[13] The fighting ended with the signing of the Unity Accord of 1987.

[14] This is a common phenomenon in Zimbabwe. For example, the Mandivamba Rukuni Land Tenure Report notes that, 'In Uzumba, Vidco boundaries were neatly penned on maps at the district offices. On the ground and in the minds of local leaders, however, these were secondary to both political and traditional boundaries' (Rukuni Commission 1994: 216).

more senior people, such as the headmen and councilor[15]. This initial RMC was, however, dissolved by the FC after an audit in 1996, and fresh elections were ordered. The subsequent elections entailed an intriguing blend of election and nomination. Three village heads were asked by the FC to nominate seven people. The community's role was relegated to that of choosing who among these seven would assume the posts of chairman, vice-chairman, treasurer, secretary and committee members. Furthermore, the FC simply instructed the traditional leaders to nominate people in their villages without informing those nominated of their roles. This could explain why a number of RMC members in Batanai could not define what their exact roles were. A village head in Batanai said they were told to submit names if they did not want their villages to be "left behind". The FC commissioned designs, and effectively empowered the village heads to appoint the RMC members, with the peasants being maneuvered to endorse the outcome.

The inaugural RMC in Chemwiro-Masawi was formed through open elections but with the backdrop of a tactful electoral manipulation. Before the election was conducted, the FC limited candidacy to people with the ability to read and write. In addition, people were made to vote through a show of hands instead of through secret ballot, with the FC supervising the process. Voting by show of hands is highly amenable to manipulation, as the communities will be seated in a haphazard manner and can therefore vote more than once, and it can also lead to miscounting.[16] On 5 July 2000, in Chemwiro-Masawi, a vote of no confidence in the RMC was passed through the subtle machinations of a village head, who felt that the RMC elected in 1996 was usurping the powers of traditional leaders. The people elected a new committee. However, the FC nullified the election, dissolved the new committee, and reinstated the 1996 one, purportedly on the grounds that continuity and the retention of a critical mass of trained members was paramount. But the majority of the ordinary people felt that the committee could no longer exercise their mandate. Village heads consulted during the course of the study corroborated the allegation that the RMC had been usurping their powers, as it called for meetings unilaterally without consulting them.

The Chemwiro-Masawi RMC's real or perceived illegitimacy at the local level appears to arise from its strong alignment with agents and symbols that derive their legitimacy from external sources. Thus, instead of being an autonomous unit, the RMC effectively complements the Forest Protection Unit (FPU) in policing and issuing grass and broom permits. Instead of articulating peasants' needs, such as the staking of cultivation and residential rights in the forest reserve, the RMC is seen as an instrument for advancing

[15] Senior people are commonly referred to as "political heavy weights" in Zimbabwe.

[16] At a ZANU PF party election in June 2001, the majority of the voters called for the discarding of voting by show of hands as they suspected that unorthodox means would be employed to rig the elections. The voters had suggested a more transparent system where people would stand behind a candidate of their choice. This would "force" the returning officers to count properly, as the candidate with the longest line of voters would be expected to have the highest number of votes. This was dismissed by the senior returning officer as he claimed to be taking instructions from above—not from the voters. The controversial candidate was declared a winner with a majority of one vote. Dissenting voices were threatened with physical violence.

and supporting FC goals, such as organizing communities to extinguish fires[17] within the forest reserve. In more relaxed and jocular moments, people frequently referred to the forest reserve as the "Commission's forest" or "Mugabe's forest"[18], brushing aside the field researcher's calculated use of the term "their forest" to suggest a truly shared space or property owned jointly by them and the FC. In view of the assistance they rendered to the FPU, members of Chemwiro-Masawi RMC at one stage made overtures to the FC to secure allowances, uniforms and firearms - benefits to which the official forest guards in the FPU are entitled. Though the request was never met, it indicates that RMC members, by design or default, perceive themselves to be in closer proximity to the FC than to the citizens. RMC members also attend training meetings and workshops and are often seen by the public as assuming postures and behavior that make them appear "superior" to ordinary citizens.

The public's perception of RMCs' unjustified pride alienates the committees from their supposed constituencies, thus weakening the relation between them and the rest of the community. The chairman of Chemusonde RMC had many problems with his constituents, including being accused of deliberately destroying financial records, which he alleged were destroyed by fire, and being questioned about why the committee was not holding meetings with the people. In response to the latter, the chairman claimed that he didn't know that they were empowered to hold meetings in the absence of the FC – thereby supporting the point made earlier that some RMC members are unaware of their roles. Under these circumstances simmering animosity occurs. This animosity is, at least in part, due to the fact that the RMCs are upwardly accountable to the sources of their legitimacy – that is, to those that appointed them.

Towards the end of the research, the public's confidence in the RMCs was further eroded by "forest invasions", which occurred as part of the wave of "land invasions" in the country as a whole and are discussed in more detail in a later section. The secretary of Chemusonde RMC, in an interview on 22 August 2001, revealed that his RMC was no longer functional due to these invasions. RMC activities in his area were now being construed, by those members of the community who had settled in Mafungautsi, as a means of reporting to the FC on the forestland invasions. In Batanai, a peasant farmer interviewed on 21 August 2001 was pessimistic; he said the RMCs were going to die a natural death and would soon be history.

An analysis of the composition of the inaugural RMCs shows that most of the positions were captured by the local political elite at the expense of other social groups. For instance, the positions of chairperson, vice-chairperson and secretary in the first Batanai RMC were filled by the chief's secretary, the chief's assessor and the councilor, respectively. The treasurer of the same RMC was a headman, whilst the ordinary committee members were a district party chairperson, a VIDCO chairman and a VIDCO

[17] In the colonial times, the senior FC officer in Mafungautsi was nicknamed "Dzimamoto"- a Shona name meaning the one who orders people to extinguish fires.
[18] The President of Zimbabwe is Robert Mugabe, who has been in power since independence in 1980.

secretary. Only the position of vice-secretary was filled by an ordinary farmer. The inaugural RMC in Chemwiro-Masawi was also dominated by the local elite.

In both RMCs, virtually all the posts were held by men. The only exception was in Chemwiro-Masawi, where a woman was co-opted onto the RMC after the election at the insistence of the FC.[19] The FC has, over time, become increasingly assertive in implementing CIDA's policy on gender balance in the RMCs. It tried to follow CIDA's "advice" as they were the funding organization. The FC also, as noted earlier, advocated that people should vote for RMC representatives who can read and write. This insistence on the possession of reading and writing skills works against the minority Shangwes, among whom literacy levels are generally lower compared to the other ethnic groups. However, the elected RMCs in both Batanai and Chemwiro-Masawi failed to advance the interests of their communities, despite being able to read and write.

Despite the dominance of the male elite in the composition of the RMCs, the configuration of real and effective power may have little to do with who is a member of the RMC. For instance, a relative of one of the local headmen was found to dominate and hold sway over most decisions made by the Batanai RMC. The community, during subsequent probing, intimated the existence of a hidden sphere of interaction, in which the headman's relative was variously perceived to wield influence through eloquence, charisma or possession of esoteric powers, including witchcraft. People's failure to express their interests or intentions openly also helped to explain some of the networks and associations. For instance, in Chemwiro-Masawi RMC, a group of business people from outside the RMC area conspired with the RMC chairperson to take over a bee-keeping project, without the support of the community as a whole. In an interview, the leader of the business people confirmed their interest and justified the exclusion of the community on the grounds that they did not have the resources to participate effectively. The invisible networks of interest, affection and association may be observed through actions and the unspoken word, or what people do or don't do.

Decision-Making and Fiscal Autonomy

Once RMCs have been elected, they are supposed to formulate and adopt a constitution. In practice, however, the constitutions are not formulated by the local communities. The RMCs are made to adopt a standard draft constitution, formulated by the FC in conjunction with the Ministry of National Affairs and Employment Creation. Adoption of the constitution is a tacit precondition for any community to join the co-management project. The RMCs are supposed to amend the constitution to meet their particular needs before adopting it. In practice, however, they simply adopt it. Failure to amend the constitution may be caused by several factors, not least of which is the low literacy levels among communities in the Gokwe area. According to Central Statistical Office (CSO)

[19] One of the meetings of women we requested the kraalhead to organize for us was challenged by one Batanai villager "What does the kraalhead want to do with our wives". This is not a unique incident as a woman who had been elected as the treasurer for the Masawi School Committee on 14 March 2000 was denied the opportunity by her husband.

records, in 1992 only 39% of people in Gokwe District[20] had received formal education (CSO 1992). The constitutions which communities are made to adopt and are expected to amend are written in English. The Chemwiro-Masawi pre-grass cutting workshop of 5 November 2000 demanded the translation of the constitutions into the vernacular language so that people would know their "rights and powers". But, to date, this has not been done.

Read in isolation, section 24 of the standard RMC constitution appears to be devolving decision-making autonomy to the RMC, including responsibility for "managing the affairs and business of the community and exercising all the powers that are necessary to achieve all the objectives of the community"[21]. In practice, however, this autonomy is conditional; it is circumscribed by section 20 of the same constitution, which gives the FC veto powers over decisions made by the community. Similarly, considered in isolation, section 14 of the constitution vests decision-making authority in the RMC's general meetings (which are open to all members of the community as well as committee members), including the authority to amend the constitution. In practice, however, the FC is the ultimate authority, since it reserves the right to approve amendments to constitutions and any other decisions made at the general meetings. Thus, powers devolved through some provisions of the constitution are re-centralized via others. This makes co-management unsustainable, since the local people feel that they have been cheated by the FC, which is perpetuating its old management strategy under a new guise. However, it will be shown later that, although appearing to be formally marginalized in decision-making, communities still exert an influence on political processes in Mafangautsi through a variety of mechanisms.

The conditional decision-making authority accorded to RMCs extends to the management of revenues that accrue from thatch and broom-grass permits. Initially, the FC used to bank money on behalf of the RMCs, but RMCs are now allowed to open their own bank accounts. However, this does not give the RMCs fiscal autonomy. The FC is a signatory to the RMC accounts, which gives them leverage in approving the uses of revenues. In Batanai one RMC member, who felt she had been unfairly removed from the RMC, refused to cancel her name as an authorized signatory of the RMC account. The FC, however, used its muscles to have her name removed from the signatory list in her absence. The FC also enjoys audit powers over RMC revenues, and through such powers can dissolve RMCs they consider are not performing adequately.

Over the years, the FC has encouraged the communities to invest their money in environmentally friendly projects, particularly bee keeping, for which it is quite easy to get funding approval. Much of the accruing revenues have thus been invested in the expansion of apiculture, with hives being acquired for the communities through the FC.

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[20] Census figures available are for the period before the separation of Gokwe into Gokwe North and South in July 1993.

[21] This sounds rather ambiguosambiguous. This is a result of using constitutions designed for specific projects, which have specific objectives thatwhich doid not make much sense when applied to a broader community.

Income from grass permits for the period between 1996 and 1999 was about Z$23,000 for Chemwiro-Masawi and Z$10,000 for Batanai, none of which has been invested in enterprises other than apiculture. Chemwiro-Masawi and Batanai RMCs now own 30 and 10 hives respectively, although none of these have yet been commercially exploited. Investment in apiculture, however, is completely at variance with community priorities. In a questionnaire survey of 240 respondents in both Batanai and Chemwiro-Masawi, over 70% of the respondents preferred to invest the money in vegetable growing projects and another 26% variously preferred fruit marketing, carpentry and other minor industries. In contrast, only 4% preferred apiculture, the official favorite. In another RMC, called Sokwela, the community also wanted to invest their money in gardening and poultry projects, but these were not approved by the FC, which advised an investment in apiculture instead. The priorities of communities in the Chemwiro-Masawi area also include non-commercial projects, notably the development of the Masawi primary school and Chemwiro clinic.

"Peasant Weapons" against Co-Management

The FC has powers to enforce comanagement. However, the peasant farmers in both Batanai and Chemwiro-Masawi also have their own forms of power, which they have used to counter those of the FC. This is what Scott (1985) called the "weapons of the weak". The examples below show how the "powerless" peasants have reacted to co-management. Their methods have ranged from poaching, arson and setting forest fires, to the defying of FC directives on the choice of projects and questioning the contradictory roles of the FC.

The available poaching records are only official figures. They mask the enormity of the poaching problem as the majority of the cases, according to locals, go undetected.[22] The poachers who pay fines are few (Vermeulen 1994). In some cases, poachers apprehended by FPU guards are not handed over to the police since such guards have the discretion of warning the poachers, confiscating the tools of their trade or just fining them at the FC level. Suspicions of connivance and bribery between the guards and apprehended poachers were commonplace. Sophisticated poachers were reportedly easily able to evade the guards because they have intimate knowledge of FPU and RMC patrols. The patrols were reputedly more intensive during the grass-cutting season, after which there tended to be significant lulls that poachers could put to good use. Night times were also said to be "safe" for poachers.

Focus group discussions held in both Batanai and Chemwiro-Masawi criticized the use of snares in the Mafungautsi Forest - not because poaching was unacceptable, but because it could possibly result in the loss of domestic livestock. The respondents condemned the method, but not the practice. One village elder in Batanai also questioned the double standards of the government, pointing out that in the early 1950s people were rewarded

[22] After gaining the confidence of the people in Mafungautsi, the researcher was informed of how people poach in the area. In one instance, the researcher had lunch with game meat which had been poached in the forest. Some RMC members were not willing to report their fellow villagers to the FC, as it would cost them some benefits to be derived from fellow community members.

by the colonial administrators for killing game as it was perceived as a way of opening up remote areas and helping to eradicate the tsetse fly menace.

The enforcement of RMC regulations at the local level is not without its problems, since disgruntled individuals, it is suspected, often resort to arson. For instance, the hut of an RMC member in the Gababe area burnt down in a suspected arson attack, but the culprit was never found. The repertoire of suspected arson attempts includes the intentional starting of fires within the forest reserve. Most of the fires tend to occur after the grass-cutting season, lending weight to the suggestion of some form of conspiracy, since people intentionally start fires after grass harvesting. This would be well timed, it was claimed, to destroy the "tick menace" in the forests and encourage the growth of new grass for cattle grazing. This is probably one means of spiting the FC.

On other occasions, people simply refuse to carry out an order made by the FC. An example relates to the case mentioned earlier of a group of businessmen who tried to establish a bee-keeping project in Chemwiro-Masawi. The consortium of ten business people, with the support of the RMC chairperson, approached the FC's provincial manager for a piece of land in the RMC area to use for apiculture. A portion of land measuring 4900 square meters was excised and allocated to the group for the establishment of some 1500 beehives. The provincial manager endorsed the agreement on the understanding that it was genuinely a community-backed development, but it so happened that the arrangement by-passed the project coordinator, who oversees the implementation of co-management, because she was away at the time. The project coordinator, who reports to the provincial manager, reversed the agreement, ordering the community to take over the project and to reimburse the business people for the expenditure they had so far incurred. She took this decision because, despite the RMC chairperson's involvement, most of the businesspeople resided outside Chemwiro-Masawi RMC. The local communities quietly ignored the order; as already indicated, their priorities were to develop Masawi school and Chemwiro clinic rather than establish a bee-keeping project. Meanwhile, it was alleged that the RMC chairperson had been bribed in the deal. The rest of the community felt that the chairperson should be held solely accountable for reimbursement since he alone had been responsible for the penetration and capture of "their" project by the businessmen. This example also demonstrates the fact that co-management is not an arena in which the interests of the state are pitted only against those of the local community. Resource sharing is an arena in which a wide variety of actors - state and non-state, local and non-local – compete.

Interviews with people in the Mafungautsi area showed that they were both aware and highly critical of the ambiguous role of the FC in the co-management arrangement. The fact that the FC is player, referee and coach contradicts its supposed status as an equal partner, thereby bringing into question the whole concept of "co-management". The assumption that the FC and the participating communities have equal status is also contradicted by the equivocal nature of certain FC activities. The FC's role in the exploitation of timber in communal areas illustrates this point. Under the provisions of the Communal Lands Forest Produce Act of 1987, RDCs are allowed to award concessions for the commercial extraction of timber from land under their jurisdiction,

provided they have the approval and technical support of the FC. The RDC receives a royalty payment from the concessionaire, based on the amount of timber cut, and the FC receives a supervisory fee. However, under the same Act, peasants are not allowed to utilize timber on their land for commercial purposes. This caused confusion and anger in the Chemwiro-Masawi area, where the RDC had, under the supervision of FC staff, awarded a concession for the extraction of timber from the peasants' fields. In the eyes of the peasants, the FC staff were villains, helping the RDC to sanction illegal extraction of forest products. What annoyed the people even more was that the cutting of timber commenced when crops were growing in the fields. This meant that tractors and lorries were destroying the crops in order to cut the trees.

Co-management in Mafungautsi is, therefore, a case neither of equal partnership between the FC and local communities or of an all-powerful state regime pitted against vulnerable peasants. The situation on the ground suggests a complex picture with many active stakeholders, often with those ostensibly on the fringes of formal systems of power significantly involved in local social and political processes. It also shows that local peasants have evolved various instruments, such as poaching, for asserting resource claims in a protected state forest regime. This suggests the need to broker "win-win" arrangements through co-management.

CO-MANAGEMENT: WHO BENEFITS?

Introduction

The new co-management initiatives have resulted in different alignments of the flow of benefits to people and groups within the societies concerned. New initiatives introduce new dynamics that see certain groups of people benefiting. Co-management aimed to re-shape the political economy in such a way that the local communities would benefit. However, the evidence presented in this section will show that the creation of upwardly accountable RMCs has prevented this from occurring. The benefits to the local communities are limited and, as already indicated in the previous section, accrue mainly to the committee members and their associates.

Role of External Lobbies and Interest Groups

In order to understand who benefits from co-management in Mafungautsi and how and why they benefit, it is necessary to look more closely at the evolution of the co-management initiative and, in particular, at the various lobbies and interest groups involved.[23]

The main initiative for the project came from a development lobby represented by the Canadian International Development Agency. CIDA saw it as an opportunity for investing in the development of the institutional infrastructure for co-management

[23] These competing land use lobbies are discussed in considerable detail in Murphree (1990).

between the FC and surrounding peasant communities (Roper and Maramba 2000).[24] The agency provided generous funding, through the FC, for the creation of interface institutions to link communities and the FC in the new co-management partnership. A project coordination team seconded to the FC was created to facilitate the setting up of RMCs and to equip such committees with the requisite capacity in terms of leadership, technical and other skills for the effective discharge of their new roles in the venture. Recurrent expenditure, including salaries, allowances and logistical requirements (like vehicles and tractors) of the coordination team and support and agency advisory staff, took up a major proportion of the funding. Related infrastructure developments included the construction of a Resource Sharing Center and accommodation, including houses for members of the Forest Protection Unit (FPU).

The original CIDA proposal had envisaged a diversified co-management initiative, including eco-tourism and wildlife management ventures as well as forestry. Massive funding was thus used to build chalets. However, although completed, the chalets have yet to be utilized. There are several factors that have prevented their use, including the fact that the water is not connected from the new borehole due to sub-standard water tanks, which have fallen down twice before commissioning. The small tourist base, which has been further depleted by the invasion of the forest by communal farmers, is another possible explanation.

The wildlife management part of the proposal readily found support from a wildlife lobby that included the Gokwe South Rural District Council, under which Mafungautsi state forest and its surrounding peasant communities fall. The RDC already held "appropriate authority" status over wildlife resources within its area under the Communal Areas Management Program for Indigenous Resources (CAMPFIRE), and any wildlife-related venture involving peasants would thus enhance the RDC's leverage. However, the wildlife venture never took off because of pressure from a livestock lobby, which included AGRITEX (the national agricultural extension agency) and allied international partners, who view livestock production as a more viable option for the area than wildlife management. One such partner was the European Union, which has, since independence, been a key donor to the Zimbabwean animal health sub-sector, particularly in providing financial and other support for controlling foot and mouth disease. Some of the measures used to control the disease include the erection of game fences to prevent mixing and contamination of cattle by buffaloes, which are reservoirs of the disease. Under the Lome Convention, Zimbabwe has an annual beef quota export obligation to the European Union.

A conservation lobby, which includes the FC, exercises exclusive management control over the state forests by restricting peasant settlement, cultivation and consumptive use of

[24] One can only speculate on the actual interests of CIDA, as it might have been a way of driving the Zimbabwean government policy towards the global decentralized forestry management trends (cf. Ferguson 1990). It also provided an employment opportunity for its citizens as advisors and through consultancies.

resources in the forest. Only those activities considered to be environmentally benign have found support from this environmental lobby, and these are thus the only ones that have been included in the co-management set-up. The main activities are grazing and the extraction of thatching grass, which form the core components of the co-management scheme as it has come to operate in Mafungautsi today. The controls over these activities are seen by the FC as a means of achieving environmental protection goals. They are intended to reduce the amount of timber cut for fuel and lessen the damage done by forest or veld fires. The FC also uses its powers over RMC finances to prevent RMCs from utilizing the revenue they obtain from thatching grass on projects which are considered to be environmentally harmful. As already indicated, although such revenue belongs to the RMCs, decisions regarding its disposal are subject to approval by the FC. Such controls may be well-intentioned monitoring and supervisory tools; however, the fact that the FC has authority over a community's use of funds means that the RMCs have no fiscal autonomy, which is an important incentive for the promotion of public participation and partnership.

Peasant Access to Forest Resources

The cutting of grass for thatching and other purposes is, as already indicated, one of the most important components of the co-management scheme. It is administered through a system of RMC controlled permits for areas of the forest reserve allocated by the FC to specific RMCs. Other areas of the forest reserve, particularly vlei[25] areas like Lutope, where thatching grass is abundant, are still under FC control with the permits being issued directly by the FC. Those who want the grass can pay for the permits in cash to the appropriate RMC or (in the case of areas like Lutope) the FC. A system of payment using bundles of grass is used for collectors who cannot afford to pay for the grass permits in cash. For every five bundles of grass cut, the user is entitled to three; the remaining two are retained by the RMC or the FC for resale and the revenue accrues to them. Reeds for mats and grass for making brooms can also be extracted from the forest reserve through similar permits; a single permit entitles the user to a day's extraction of the resource with the revenue again accruing to the appropriate RMC or the FC. Collection of dead wood for fuel is only permitted under a stringent system of conditions, including the requirement that extractors be in the company of members of the Forest Protection Unit. Peasants must not be accompanied by dogs and should not carry axes and matches or lighters on fuelwood collection excursions. These are seen as tools of those likely to be involved in nefarious activities, like poaching (for which dogs are used), felling of trees (axes) and extraction of honey (matches and lighters) in the forest reserve. Peasant communities are also allowed to graze their livestock within the forest reserve but the no-dog policy still applies for herders entering the forest.

These sound like neat and rational bureaucratic procedures, but practice in Mafungautsi does not work this way. Peasants are innovative and find ways of circumventing the bureaucracy in order to meet their own needs. Thus, some people in Batanai manipulate the situation, illegally collecting products—including game—from Mafungautsi when the

[25] This is a term commonly used within Southern Africa to define a wetland area with grass.

FPU is not in the vicinity. Since the whole circumference of the 82,100 hectare forest cannot be effectively monitored all the time, some villagers also sneak in and out of the forest without paying permit fees. Similarly, peasants tend to hand over smaller bundles of thatching grass to the RMCs and retain the bigger ones. Moreover, the bundles of grass given to the RMCs are not always sold as intended. The cost of transporting and selling the grass at Gokwe Center has meant that no RMC member has been willing to sell brooms or thatching grass away from their villages. The bundles have simply been dumped at the homesteads of the RMC members, in most cases the treasurer or the chairperson. This has resulted in lots of bundles rotting. In Batanai 115 bundles of thatching grass were rotting at the treasurer's homestead in April 2001. The situation was similar at the homestead of the Chemwiro-Masawi RMC chairman, although the exact number could not be counted due to the advanced stage of rotting. Some informants alleged that the RMC members were now using rotting of grass as an excuse for misrepresenting the actual number of bundles sold during auditing, while some RMC members were reported to be using the grass before it even begins to rot.[26] These are clear illustrations of how the rationality of co-management does not necessarily coincide with that of the local people, who manipulate the rules to suit their own purposes.

There were various other complaints about RMC members. In Chemusonde RMC some villagers preferred to cut thatching grass at the Lutope vleis administered by the FC rather than in areas controlled by the RMC because they felt that paying the RMC for a permit would be a direct transfer of resources to the RMC members. However, some Chemusonde respondents interviewed at Lutope FPU camp said that they came to Lutope because it has better thatching grass than the area allocated to their RMC. In both Batanai and Chemwiro-Masawi there were unconfirmed incidences of non-payment of permit fees by the RMC members and in Batanai one RMC member was alleged to have harvested broom grass before the official opening of the grass-cutting season, in the pretext of monitoring illegal broom grass collectors. In another instance, the research assistant successfully traced cartwheel tracks from an area where broom grass had been poached to the RMC member's homestead. It was evident from issues raised at the workshop held at Shingai Training Center on 4 November 2000 that some of the villagers had reacted by joining the RMC members in this illegal collection. This workshop recommended the use of incentives to encourage people to assist in the apprehension of rule breakers. A similar arrangement has worked well in the Kana Grazing Scheme in the western parts of Mafungautsi. People in Kana, through their own initiative, set aside some vlei areas within the communal area, for controlled harvesting of thatching grass. They made their own rules and established a committee to manage the vlei. The committee employs what they call "fiber guards". These are community chosen guards who enforce decisions made by the community in their meetings. They are so called because they do not use the conventional handcuffs used by the state police or the FPU. Anyone who grazes livestock in the vlei before the end of the grass cutting period is fined

[26] Grass collection now seems to be a lucrative venture, as most RMC members want to use their homes as grass collection centers in order to benefit if the grass "rots". Those whose homes are not designated as collection points do not cooperate fully in the RMC activities.

Z$15, a third of which goes to the guard who made the arrest. This project was initiated by the local people themselves as a way of securing a supply of thatching grass.[27]

The emphasis on grazing and thatching grass reflects the fact that the FC favors a partnership that revolves around minor forest products rather than timber or land rights *per se*. However, studies conducted in areas adjacent to forest reserves in Zimbabwe have consistently demonstrated that peasant communities in such areas attach far higher values to the land and construction timber in the protected forest reserve than to minor forest products (Matzke and Mazambani 1993; Matose 1994; Gwaai Working Group 1997). From colonial to present times, state-enforced evictions have not effectively stopped peasants from settling and cultivating in the forest reserve. They have not completely quelled people's quest to be reunited with what they consider to be their land and resource heritage.

In Mafungautsi, several attempts have been made to regain access to the forest. For instance, soon after the Unity Accord of 1987, a peasant delegation from the Ndhlalambi area organized to meet the Minister of Local Government, Public Works and National Housing, whom they lobbied for their return to the forest reserve. Their justification was that they had not supported dissidents and that anyway the war was long over; according to them, this warranted their readmission into the forest reserve. The move was not successful. The Minister explained that the forest reserve legally belonged to the FC, and that peasants could not settle on it since it was a protected area. Recently, some peasants have started illegally constructing their huts in Gondoma vlei and close to the Lutope FPU Camp. This is being carried out in the context of the national land invasions, which are taking place in the commercial farms in Zimbabwe. This is a highly polarized issue and initial warnings by the FC have gone unheeded. The new settlers, who number about 49 households, together with another 131 who are reported to have registered their intention to settle in the forest, have already established local branches of the ruling party.

The above evidence shows that the rhetoric of co-management and resource sharing as paradigms of social empowerment needs to be subjected to critical analysis. Co-management in Mafungautsi was never designed to genuinely empower peasants. Furthermore, peasants will never be empowered in the supply-led context in which power is transferred from the top-down, and international interests and local functionaries define the shape and extent of powers and roles to be assigned to local communities. The international interests, manifested through CIDA, have been pushing their interests through the FC by constantly reminding them of how the project had to "fit" within its terms of reference. The evolving model of co-management in Mafungautsi appears to have missed community concerns. The rural communities are often perceived as sleeping partners. This idiom, however, only holds true as an obvious acknowledgement that natural resource bureaucracies—and the international experts who inform them—are powerful shapers of the environment and how people interact with it. But in practice the

[27] No in-depth study was carried out of the grazing scheme at Kana to enable the research to do a comparative analysis since Kana was not one of the main research sites.

exercise of such power is mediated through a variety of other factors, particularly those grounded in contexts in which such power operates.

CONCLUSION

Co-management in Mafungautsi thus appears to have very little to do with the democratization of forest management, in spite of presumptions implying equal partnership, co-ownership, co-use and co-management. The RMCs, which are the institutional vehicle for co-management, were created from a multitude of bodies aligned with state and customary power bases and were superimposed on local structures, creating a complexity that counters the concept of co-ownership through co-management. A legislative environment that entrenches the centralization of natural resource governance while denying the privilege of legal mandate and fiscal autonomy to units closer to the citizens fundamentally contradicts notions of co-ownership and co-use.

Co-management was supply-led. Like most top-down initiatives, it is practiced on the terms and conditions of its authors and their allies, rather than those of the citizens whom it is ostensibly designed to empower. RMCs are external initiatives in terms of their conception, formation, operation and legitimacy. These imposed structures form a new complex and fluid matrix when they interact with the existing power base. Furthermore, their imposition on existing structures confuses relationships at the local level. The accountability of the RMC institution has remained upward to the Forestry Commission in a manner far beyond what is necessary for supervisory purposes. The state seems simply to be sustaining or re-producing itself.

Co-management as an implementation strategy for decentralized natural resources management in Zimbabwe has not been successful for two main reasons; firstly, it has taken a paternalistic approach, and secondly, insignificant powers have been devolved to the local level. The review and case study approach adopted here points to the need to re-evaluate the whole co-management process in Zimbabwe so as to meaningfully decentralize power to the local actors within the forestry sector. There is, therefore, a need to ensure that the RMCs are more demand driven, or at least more downwardly accountable with respect to their conception, formation and legitimization. The potential for doing this is demonstrated by the Kana Grazing Scheme, where the grazing committees were an initiative of the community and the elected committees were downwardly accountable to the electorate. Demand-driven and downwardly inclined approaches stand a greater chance of generating sufficient internal dialogue and debate, which can be the basis on which RMCs become functional. Rather than generating fragmentation, they require the coalescence of complex and dynamic networks of interest and association. This further lends weight to the notion that downwardly accountable institutions are more likely to result in more positive social and environmental outcomes (Ribot 1999).

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